

THE RIGHT PROCESS FLOW

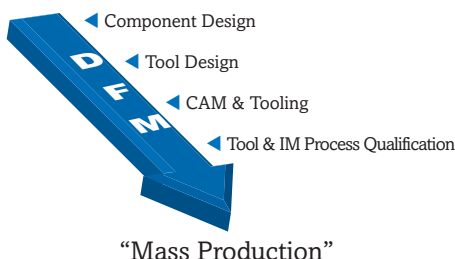
In the “high stakes game” of product development, OEM’s, moulders and mouldmakers know that market share can swing quickly. As a result, product release timelines are continually compressed. The key to meeting these challenging timelines is the ability to set the right process flow.

AST Technology works with customers to tailor process flows by introducing a systematised approach including the following steps:

- Combine Design for Manufacture (DFM) with “kit standard tooling” to optimise product design using company-owned tool standards
- Incorporation of Process Optimisation to ensure the best, most consistent injection moulding process
- Prevent product development and production release from occurring in various “silos”

Using the DFM process during product development can help track technical information flow and keeps all involved parties properly informed. It will also reduce lead times, improve production and provide accurate production cost estimates.

Find out how AST can assist your company by devising the right process flow for optimised product development. Email us at contact@ast-tech.de.



“Mass Production”

DFM should be involved in all production steps. Information has to flow from/to DFM also for lessons learned.

CASE STUDY: COLD RUNNER OPTIMISATION

Cold runner gating systems remain a common gating solution, with 3-plate cold runner systems often used in mass production tools. So obtaining the right cold runner design and dimension is critical for optimum material usage and component quality.

AST recently developed a tool for its exclusive CAD system to support internal DFM work. This tool will allow mould designers to deliver a complete and optimised 3D geometry of a cold runner system for tooling to the customer. Combined with share rate and gate size calculation, it will ensure the best, most efficient cold runner design for production.

To illustrate, AST recently applied this new tool and worked through calculations for 137 production tools using 2-plate and 3-plate cold runner systems being run by an OEM customer. In addition to optimising the part performance and heat release to the tool, AST helped this customer realise an average savings on material usage of 15% on all 137 tools.

Visit www.ast-tech.de to learn more.



An oversized 3-plate cold runner results in higher production costs.

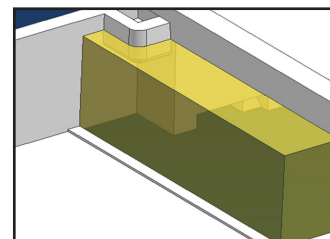
Cold Runner Optimisation Results	
Total Number of Tools:	137
Savings per day (8 hrs):	€94
Savings per year (220 days)	€20,832

Customer gained a 15% savings by simply optimising the runner design and size.

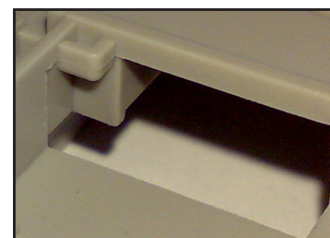
VIEWPOINT

During the product development phase, too often the main focus is on the functionality and appearance of the product and little attention is given to suitable surface draft on ribs, snapfits, screw towers and break troughs. Instead, they are seen as minor details and addressed just before releasing the 3D CAD design for tooling.

Drafts are important for easy de-moulding. They help determine mould shut off and assist in eliminating flash caused by restricted sealing surfaces, weak steel and knife edges. More importantly, limitations from other components related to overall product assembly make late or insufficient attention to drafts even more costly in terms of both time and money.



DFM 3D development for good parting lines.



Moulded result with safe steel shut off.

AST’s Design for Manufacturing (DFM) services supports the design development process by addressing component structure and de-moulding for the best possible results. Call +49 (0)5221 7 630 695 or visit www.ast-tech.de for more information.