

Design for Manufacturing (DFM)

Because component design has a direct impact on both tooling and processing, AST Technology GmbH helps support the design development process by providing component Design for Manufacturing, or DFM, review services to ensure the development of the best possible component design for production.

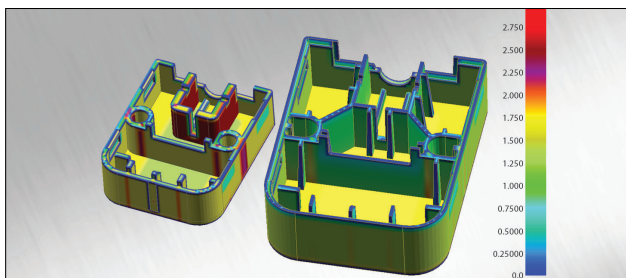
DFM Benefits

- Optimises component design for the most efficient manufacture through the development of a company-owned tool standard
- Ensures that the component design will suit the latest material and tooling technologies
- Ensures that the component design will face no problems in post production (assembly, painting, printing, plating, etc.)
- Accurate cost predictions on tooling, production environment and part piece price
- Value engineering to convert existing component design to injection moulding component design

AST DFM Service Overview

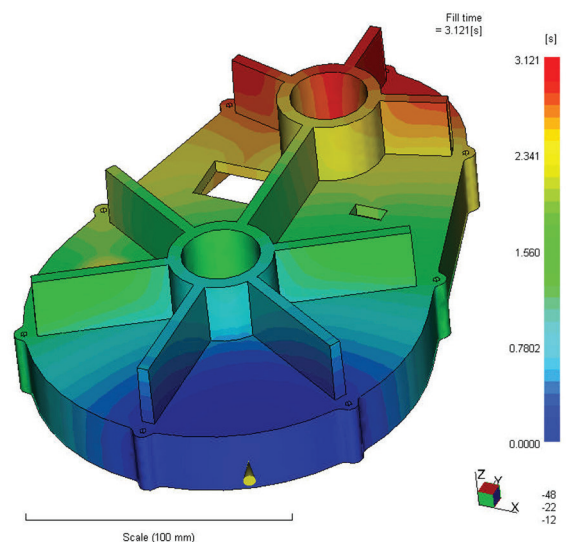
DFM analysis on component structure and de-moulding includes :

- Material selection and specification
- Analysis on wall thickness, splitting, de-moulding concept and tool structure
- Value- / re-engineering to convert products from metal parts into injection moulded polymer components



AST's DFM and value engineering improve component functionality, manufacturability and lower costs.

- Feedback on proposals in structured reports and/or within changed 3D CAD geometry



Optimise filling behaviour and part quality by conducting structured flow analysis.

Flow analysis is offered for a wide range of applications:

- Available for single shot, multi shot, insert moulding and gas assisted components
- Analysis with focus on:
 - Filling profile and filling pressure
 - Shear rate and temperature
 - Cooling time, volumetric shrinkage and part deflection
 - Gate size and cycle time calculation
 - Mould functions such as venting and cooling feedback
- Feedback in structured reports accompanied by 3D animation files.

AST customers often use the DFM service in combination with tool design reviews and injection moulding process optimisation for analysing and resolving existing problems in production. This can either be performed remotely or on-site with "hands on" processes in the production environment.

For additional information please call your local AST Technology office or send an email to contact@ASTTech.com.