FormingSuite®

HEXAGON MANUFACTURING INTELLIGENCE | FTI FORMING TECHNOLOGIES

COSTOPTIMIZER® ADVANCED

FORMABILITY RISK ASSESSMENT, MATERIAL UTILIZATION COST ESTIMATION

COSTOPTIMIZER® ADVANCED combines the power of FTI's premier formability analysis, blank development, and blank nesting tools with specialized product and process optimization tools that help identify design changes that reduce material costs while significantly reducing the number of engineering design changes caused by formability issues. It is equally suited for line die or progressive die components and it can also identify product design changes that improve material utilization and reduce costs. COSTOPTIMIZER® Advanced provides the required information to evaluate multiple manufacturing scenarios for optimal material usage.

COSTOPTIMIZER® ADVANCED

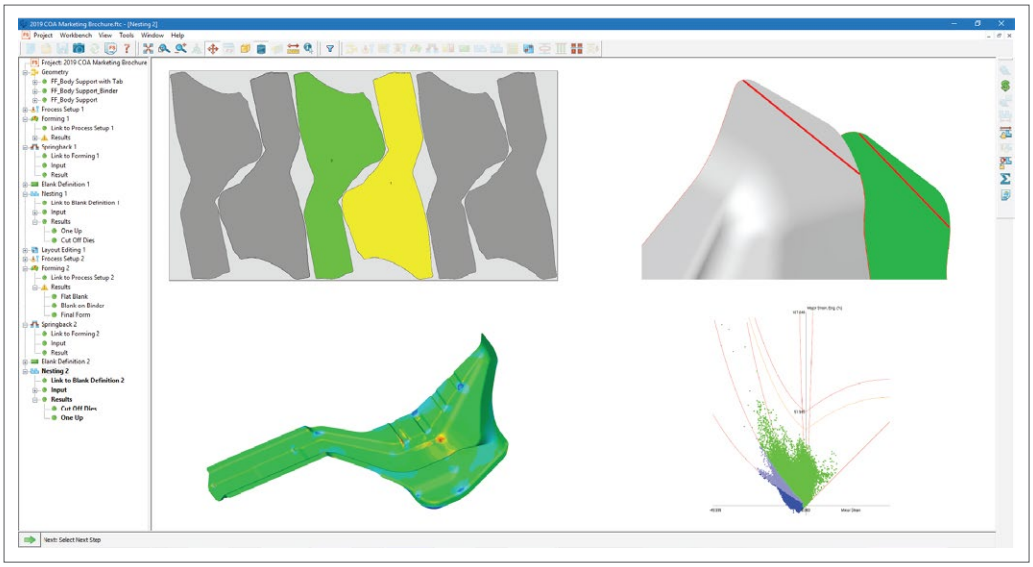
COSTOPTIMIZER® ADVANCED is used by cost engineers and product engineers to performs formability risk assessment, develop precise blank shapes, manage material utilization and establishes target costs for sheet metal components. Piece part costing and material estimating is performed with confidence due to FTI's proprietary Coupled Hybrid Inverse (CHI) solver for fast and accurate results. Substantial material costs and weight reductions for BIW components can be assessed and monitored.

FTI's proprietary Coupled Hybrid Inverse (CHI) solver is used to predict formability (splits/wrinkles) and springback issues to reduce ECOs, develop blank size, determine material utilization and weight. Costing/Product engineers can evaluate multiple manufacturing layouts leads to derive an optimized process.

Several nesting layouts can be developed and evaluated to maximize material utilization based on coil width and pitch constraints. Nests are generated for progressive dies, transfer and tandem dies for standard shaped cut-offs, 1-up, 2-up, 2 blanks and mirrored arrangements from coils for high volume production in line dies and progressive dies layouts or low volume production from slit sheets.

Component strains and thinning information can be uploaded to CAE Departments to increase accuracy of component performance for structural, crash, NHV, fatigue and durability analysis. Studies have shown that using this thinning and work hardening information can increase CAE accuracy up to 30%.

Reports are automatically generated to summarize product design issues and material utilization. This is information is used to determine Target Costs and provides a sound basis for vendor negotiations.



COSTOPTIMIZER® ADVANCED determines material utilization and enables cost and weight optimization

FEATURES

- Identifies product design changes that improve material utilization and reduce costs
- Scientific physics-based approach predicts formability issues and determines total material cost per blank
- Predicts formability and calculates blank size accounting for binder, pressure pads, blank holder forces, and pilot holes/slots
- Accurately identifies material thinning and gathering conditions on Forming Limit Diagram (FLD), Safety Zone in addition to Thickness Strain, Major/Minor Strain, etc.
- Calculates Springback to predict issues for tooling and generates compensation file for export to CAD
- Evaluates multiple manufacturing scenarios for optimal material usage
- Automatically generate reports to summarize product design issues and material utilization