FORMINGSUITE® PROFESSIONAL

Robust stamping simulation for sheet metal components

FORMINGSUITE® PROFESSIONAL enables users in all departments to quickly and easily evaluate part and process feasibility as well as springback for stamped components. In Product Design it identifies formability problems enabling engineering changes to be made earlier in the product life cycle, saving time and money. In Tool Design it provides the most accurate stamping analysis solution available today. With easy-to-use formability simulation engineers produce a “virtual prove-out”, accurately predicting forming problems such as cracking, wrinkling, thinning and springback before committing to physical tools. FORMINGSUITE® PROFESSIONAL identifies complex forming problems during the early phase of tool development, thus reducing the number of press tryouts, the number of optimization loops and consequently, the total lead-time in the tooling process.

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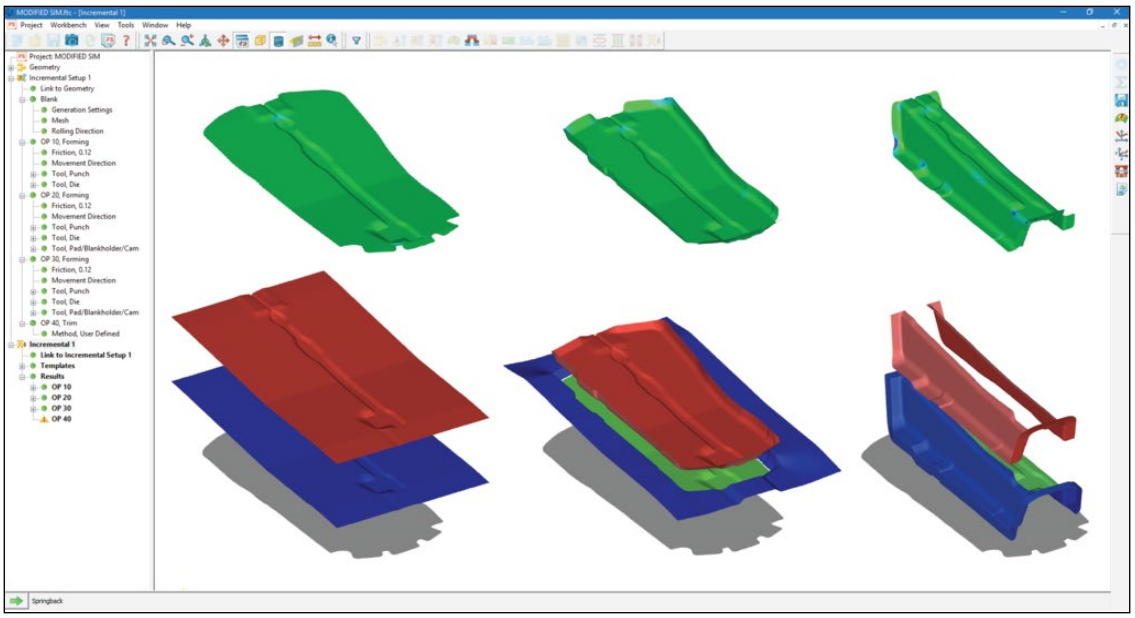
FORMINGSUITE® PROFESSIONAL is an accurate and comprehensive stamping simulation environment. It is used by cost engineers, product designers and tooling engineers to optimize designs and processes to simulate the stamping process, test designs for manufacturability and ultimately reduce costs. With the fast and easy feasibility module, users can analyze parts in seconds to predict formability issues early in the product development cycle. Analysis of your process is performed with the world-class LS-DYNA incremental solver, helping users to iterate and simulate multi-stage forming, trimming and springback thereby reducing complexity and making the manufacture of high-quality parts more cost-effective.

FORMINGSUITE® PROFESSIONAL utilizes both LSTC's LS-DYNA non-linear, transient dynamic, 3D explicit solver and FTI's proprietary Coupled Hybrid Inverse (CHI) solver for fast accurate results. It enables engineers to accurately predict the stresses and deformations experienced by the metal and determines if the metal will fail. It supports adaptive remeshing and will refine the mesh during the analysis, as necessary, to increase accuracy and save time.

These seamlessly integrated tools provide simulation and validation of the entire process from quoting to tooling design to virtual prove-out with speed and efficiency in a simple and intuitive user interface. The scientific physics-based approach eliminates formability guess work and results in substantial reduction in die tryout.



Features

- Powerful stamping analysis package for blank development, process design validation, and virtual prove-out using both incremental and coupled hybrid inverse stamping simulation
- Seamlessly integrated tools provide simulation and validation of the entire process from quoting to tooling design to virtual prove-out with speed and efficiency in a simple and intuitive user interface
- Scientific physics-based approach eliminates formability guess work and results in substantial reduction in die tryout
- Accurately identifies safety zone, FLD, material thinning, gathering conditions, major/minor strain, springback and provides compensation data
- Automatically generates a report to summarize product and tool design issues