

## PAM-STAMP 2G 개요 및 향후 개발

최광용#

### PAM-STAMP 2G Overview & Future Development

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#### Abstract

Stamping simulation technology has matured over the past decades. Finer and more detailed models have drastically improved the stamping analysis capability from investigation level to tuning and validation with proven productivity gain and cost-efficient solution. Current available stamping simulation software, which was designed more than 15 years ago to support formability issues, has started to reach its limits. Consequently new generation software has become a necessity to handle new industrial requirements. In-depth solver review, including element formulation, contact algorithm, parametric material modeling was fundamental to ensure the accuracy improvement of the forming results regarding stress and strain within the required tolerance. Moreover, the strong "time to market" pressure left a very narrow time window to perform forming simulation in order to be able to impact the design decision. Therefore, the overall simulation process has been upgraded and streamlined. Quicker die run-offs design and a quicker incremental solver fills the gap between die design and simulation. The objective is to create the first draft of a die addendum in just a few minutes, it allows earlier simulation involvement, process optimization and eliminates costly downstream problems. Furthermore, massive parallel computation represents the optimal solution for the speed-up of the validation phase with the hardware evolution. The industrial MPP version needs new innovative solver architecture. This new architecture also allows strong interaction with the customized user interface. Advanced object concept and new data model assess sophisticated simulation data management and transfer for active process/performance coupling analysis, in a collaborative and concurrent engineering environment.

This paper will describe this major investment of ESI Group, PAM-STAMP 2G. PAM-STAMP 2G offers completely unique stamping simulation value chain, from quick draw die design, through early feasibility, to final validation and quality control without modeling discontinuity.

**Key Words :** PAM-STAMP 2G, QUIKSTAMP 2G, DIEMAKRE 2G

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