

# STAMPAK

## FORMING SIMULATION

Case Study  
HENNgeered

*- All goals of the forming simulation have been achieved -*





*HENNgineered uses Stampack Xpress to simulate demanding forming processes during the quotation and design phase.*

**HENNgineered Heinsdorfergrund GmbH, based in the Vogtland region of Saxony, is a renowned, globally active manufacturer of precision deep-drawn parts and assemblies for the automotive and electrical industries. Every year, the company produces more than 50 million high-quality deep-drawn parts from thin sheet metal, stainless steel, aluminum, pre-coated sheet metal and non-ferrous metals, using around 5,000 tons of steel. The Stampack Xpress simulation software provides HENNgineered valuable support in the quotation and design phase for demanding forming processes.**

“Customers often come to us with their first idea for a component” says Stefan Pfeil, Head of product and tool development at HENNgineered Heinsdorfergrund GmbH. “We offer them the entire portfolio from product development to feasibility, analysis and forming simulation through to optimizations.” Since 2021, Stampack Xpress - a highly accurate and productive simulation software tool - has played an important role in fulfilling these demanding design and development tasks. Without any changes to the simulation definition, Stampack calculates an initial estimate by using the fast shell solver followed by an accurate description of the forming process in the volume. Springback calculation and compensation is also included, as is tolerance checking to ensure compliance with manufacturing tolerances and to display deviations graphically. The fast solid solver simulates the processes such as forming of thick sheet metal and material compaction making it ideal for simulating progressive die processes.

“In our experience, inadequate testing of a forming process led to component failure during the tryout of the series tool. We therefore decided to purchase simulation software”, recalls Stefan Pfeil.

“In a benchmark with a handful of suppliers, Stampack Xpress came out on top. We were particularly impressed by the software’s overall package of price, ease of use and good results on our parts.”

At Henngineered, Stampack Xpress is used for simulating demanding forming processes during the quotation and design phase. Here the software is impressive, not least because of the reduced number of physical trials.

Stampack Xpress has proved its worth at HENNgineered. Ultimately, all the objectives pursued with the software - minimization of physical tests, optimization of quotations, reduction of changes in series tools and research into new forming processes - have been achieved. The Saxons are also completely satisfied with Stampack GmbH’s service.

“In addition, Stampack Xpress scores - not only at HENNgineered - with its fast simulations, manageable costs compared to competing software and ease of use. User-friendliness and accurate results are prerequisites for the use of modern simulation technology, even in European toolmaking companies characterized by craftsmanship” summarizes Dr. Luca Hornung, head of development at Stampack GmbH. “Simulation should not be the privilege of large companies and car manufacturers. More than 70 toolmakers and design offices in Germany are already working with Stampack Xpress.”

HENNgineered Heinsdorfergrund GmbH (formerly UFT Produktion GmbH) is located in the Vogtland region of Saxony. Approximately 110 employees are involved in the development, production and assembly of complex deep-drawn parts and assemblies. HENNgineered is an association of manufacturing service providers that enables the production of a wide range of components: From product development support to prototyping and small or large series production in a wide range of materials. HENNgineered’s core competencies include deep drawing, metal and plastic 3D printing, injection moulding, machining, vacuum casting, combination of processes, development, innovation, tooling, prototyping and assembly. The company’s reference customers include VW, Audi and GKN.