

Simufact Forming

Software Solution for Forming Processes



Brochure

Simufact Forming

Is an established software solution for the simulation of forming manufacturing processes. It addresses companies from the manufacturing industries which are specialised in the area of metal forming and joining processes.

Simufact Forming covers all essential areas of forming technology: hot forging, cold forming, sheet metal forming, all rolling processes, open die forging and mechanical joining, to name only the most important processes.

It provides support in microstructure simulation, calculation of die load, material flow and prediction of material properties in the course of conventional and inductive heat treatment. Furthermore, thermo-mechanical joining methods of pressure welding are also supported.

Automobile manufacturers and their suppliers, vehicle construction, machinery and plant engineering, aviation and aerospace, electrical industries, energy generating companies, medical devices, and many other industries and branches employ Simufact simulation software in the production planning.





Your responsibilities – our solutions

- inefficient manufacturing processes
- many physical try-outs are required to find the right manufacturing process chain depending on production type, batch sizes, existing equipment

(

- too long process development (time-to-market issue)
- reduce your costs with regard to alternative manufacturing processes
- lack of knowledge about the processes at an early design phase
- · poor knowledge management (related to personnel fluctuation and retirement)
- meet the quality and performance requirements of your customer's specification

Best-in-class technology

Simufact Forming provides with best-in-class result accuracy at highest speed & stability. The software captivates with its capability, in displaying a unique broad physical spectrum with greatest accuracy in the simulation results (thermal / materials / mechanism). At the same time Simufact Forming convinces with short computational time and with its ease-of-use.

Virtual manufacturing of tomorrow

Simufact Forming is used as a modern simulation tool in the engineering department, method planning or in the process development. In the hands of a manufacturing practitioner or a design engineer Simufact Forming leads to a better understanding of the process. It furthermore helps to reduce the number of expensive and complex physical tryouts. Optimized manufacturing processes by an increased product quality, shorter development cycles through a faster process development, faster performed feasibility studies, all this reveal the benefits of process simulation with Simufact Forming.





Ease-of-use for the highest level of productivity

Simufact Forming is a simulation tool for hands-on professionals working with forming technology.

۲

The software is consistently oriented to the practical needs of the user. Simufact Forming is practical, fast and easy to learn. You can just concentrate on the details of your forming processes instead of on the software.

This software solution is an engineering tool for designers of dies or processes which supports and simplifies their daily work. With a few clicks, you can simulate and evaluate all standard-forming processes.

Operating advantages of Simufact Forming

- easy, intuitive user-friendly interface (e.g. drag & drop)
- very easy and quick to learn

- metal forming terminology is used
- special applications for specific forming processes support the user in creating the simulation models whilst:
 - ... uses a pre-configured simulation model and thereby decreases several adjustments for the user
 - ... expert settings are made thus the usage of the software is downsized and simplified
- clear structure according to the object area (dies, machines, material etc.), process area (forming operations) and graphic model / results area
- all commonly used objects which define process characteristics of the simulation model can be stored for later use in the database



The modular concept of the Simufact Forming product line helps to choose the suitable function for every forming application



Transfer of simulation results to subsequent processes

The process specific application modules allow you to simulate single production steps. If you combine the module across applications and products, it enables you to connect various manufacturing steps to entire process chains and to simulate these as a whole. Results of previous manufacturing processes are passed to subsequent processes and lead to considerably more precise simulation results. The simulation results can be transferred not only within Simufact Forming between individual processes, but also between Simufact Forming and Simufact Welding in order to simulate the subsequent welding process. It is even possible to export the simulation results to third-party products, for example for fatigue and crash simulations.

Reach your goals more quickly with process specific functions

•

Simufact Forming has a modular architecture.

The modular concept helps you to choose exactly the relevant functions for your manufacturing processes. This approach saves you costs and gives you the flexibility to adapt to changing requirements.

The dedicated application modules provide you process specific functionalities for all areas of forming processes. They enable for your simulation of single manufacturing steps and can be combined to simulate entire process chains. Additional modules offer you a wide range of further valuable functions for the daily use of the software.



simufact engineering gmbh Tempowerkring 19 21079 Hamburg, Germany Phone: +49 40 790128-000 info@simufact.com



۲



Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications.

 $(\mathbf{0})$

Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Simufact, part of Hexagon's Manufacturing Intelligence division, applies simulation and process knowledge to help manufacturers optimise metal forming, mechanical and thermal joining and additive process quality and cost. Learn more at **simufact.com**. Hexagon's Manufacturing Intelligence division provides solutions that utilise data from design and engineering, production and metrology to make manufacturing smarter.

Learn more about Hexagon (Nasdaq Stockholm: HEXA B) at **hexagon.com** and follow us **@HexagonAB**.

•