

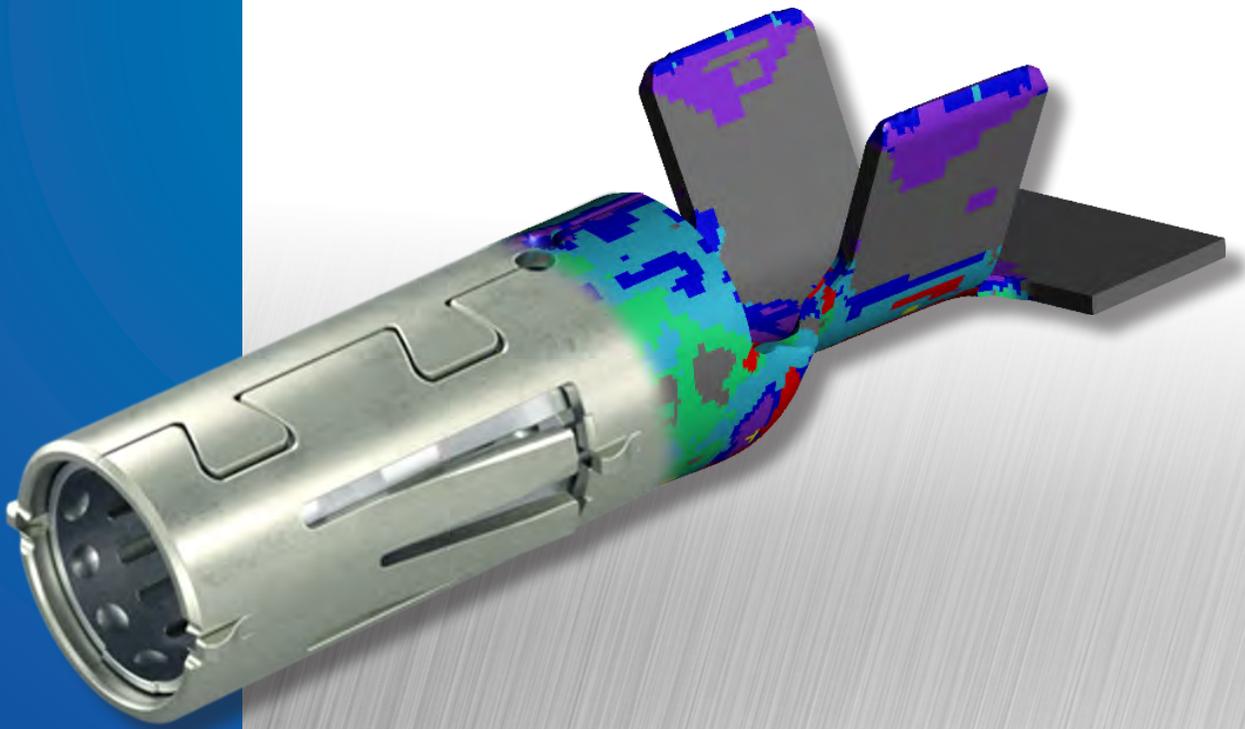
STAMPACK

FORMING SIMULATION

Case Study

Hirschmann Automotive GmbH

- Guaranteed to be completely future-proof -

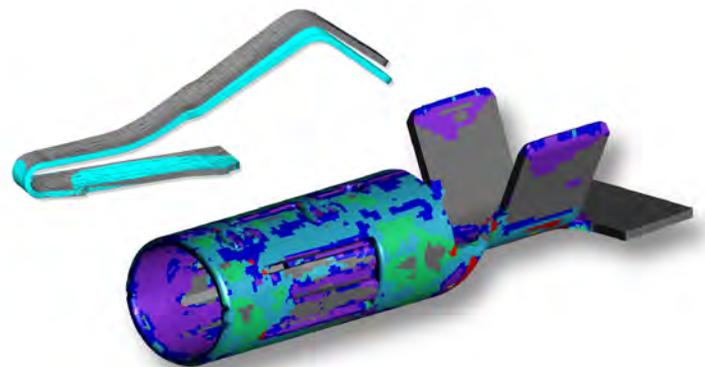




Stampack is used for designing radius transitions between round connectors and crimp connections, as well as for determining the trimming contour. (Images courtesy of Hirschmann Automotive GmbH.)

Hirschmann Automotive is a key contact for international automotive manufacturers for the development and production of electromechanical assemblies and components. At its Freyung site, the company uses Stampack forming simulation software. This software reduces the workload in mechanical production and offers a high degree of design reliability.

For over 60 years, Hirschmann Automotive has been driven by the need to meet customers' daily requirements for advanced technologies. Those who work with us benefit from our extensive capabilities in developing electrical and electronic components and assemblies for the automotive industry. "We are a strong, reliable and forward-looking partner. We solve the most difficult challenges in terms of connectors, cable assemblies and sensor systems," says Markus Peter, Head of Mechanical & Automation Engineering at Hirschmann Automotive. "We are also experts in high-voltage applications in electrified vehicles. Our competence center for stamping, bending, and packaging is located in Freyung." The Bavarian site specialises in stamped contacts, cell connectors, high-voltage contacts, shield sleeves and more, with material thicknesses ranging from 0.1 mm to 5 mm.

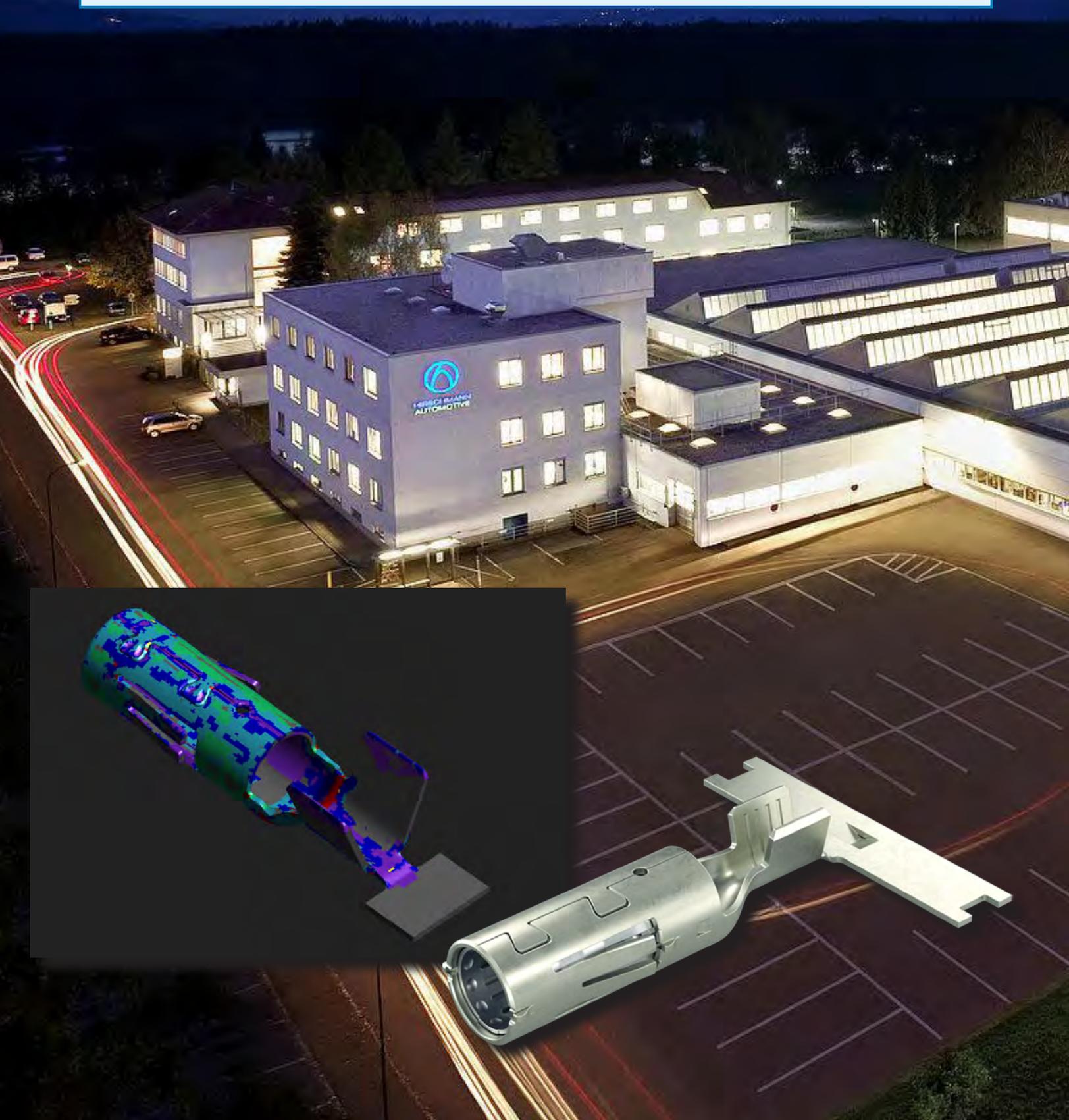


Stampack calculates the precise processing length, identifies potential edge cracks at an early stage and visualises and compensates for springback behaviour. This significantly reduces the need for expensive prototype tools.

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Hirschmann Automotive GmbH
Experts for high-voltage applications,
cable assemblies, connectors, sensor
systems as well as stamping and bending
technology.

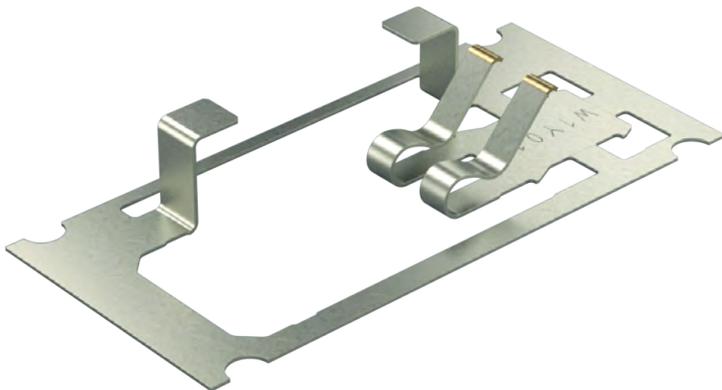
Hirschmann Automotive GmbH

Founded in 1959, Hirschmann Automotive GmbH is an international automotive supplier based in Rankweil, Austria. It currently employs 6,900 people. The Vorarlberg-based company is active in the automotive and micromobility sectors and its product portfolio includes connectors, contact and sensor systems, special cable solutions, and the plastic overmoulding of various automotive components. In addition to its headquarters in Rankweil, Hirschmann Automotive operates production sites in Freyung (Germany), Morocco, Mexico, Romania, the Czech Republic, and China, as well as sales offices in Germany.



Stampack simulation software, which has been in use in Freyung since 2022, plays an important role in these tasks. At the time, Hirschmann was looking for an intelligent solution for designing the radius transitions from round connectors to crimp connectors, a process that had previously relied on trial and error.

It was during a training course on CAD software that the company became aware of Stampack. Although the automotive supplier considered purchasing ANSYS engineering simulation software, they decided to invest in Stampack instead. Its good price-performance ratio, quick implementation and results-oriented approach made it particularly appealing for forming simulations. Without altering the simulation definition, Stampack first uses the fast shell solver to calculate an initial estimate, before providing an exact description of the forming process in volume terms. Springback and springback compensation calculations are included, as is a tolerance check. The software uses this to check compliance with manufacturing tolerances and to graphically display any deviations. The fast volume solver accurately simulates processes such as forming thick sheets and material compaction, making it ideal for simulating progressive die processes. Hirschmann Automotive uses the software for all stamping and bending operations.



In the future, the area of application will be expanded to include forming. The Lower Bavarian company is impressed by Stampack because it helps toolmakers to reduce the number of correction loops and shorten throughput times, thus reducing time-to-market. This is another reason why the simulation software has proven itself and become firmly established in Freyung in recent years. The employees of the automotive supplier also greatly appreciate Stampack's competent after-sales service and helpful (online) training courses. "We are very satisfied with the forming simulation:

Not only has it fully met our previous requirements and expectations, but it is also absolutely future-proof in its application thanks to the constant continued development and adaptation of the database," summarises Markus Peter. "Above all, Stampack takes the pressure off us in mechanical production and offers us a great deal of security in design. With this software, we are excellently positioned for future challenges, not only in the field of electromobility!"