

Press Release

AutoForm-ToolDeflect – Efficient Analysis and Compensation of Elastic Tool Deflection

Pfäffikon SZ, Switzerland, October 19, 2023: AutoForm Engineering GmbH, the leading supplier of software solutions for stamping and BiW assembly processes, presents its newly developed software AutoForm-ToolDeflect. The software allows for the efficient analysis and compensation of elastic tool deflection, a process known as over-crowning. The software can be easily applied in the early process design phase as well as in the final validation phase, enabling users to avoid unnecessary tryout loops and thereby improve production efficiency.

Tool deflection is an important issue in the manufacturing of dies and stampings, as it leads to an increased number of tryout loops, rejects and press downtime in production. In order to ensure efficient production, deflection has to be compensated. AutoForm-ToolDeflect enables users to compensate for elastic tool deflection by automatically over-crowning tool surfaces.

AutoForm-ToolDeflect can be applied in the early process design phase when the final tool geometry is not yet available in CAD. The newly developed “substructure generator” enables users to create a draft tool substructure, so that initial tool design concepts can be quickly created based on part geometry only. By analyzing various alternative concept designs, users can select the most effective design with minimal elastic tool deflection.

The software can also be applied in the final validation phase by using already existing final tool geometry data in CAD. When the tool deflection has been calculated, users can carry out an over-crowning. The over-crowning results can then be used for the milling preparation. In this way, AutoForm-ToolDeflect enables users to avoid unnecessary tryout loops and thus improve production efficiency.

Dr. Markus Thomma, CMO of the AutoForm Group, stated: “Reducing tryout loops has always been an important topic in tool shop departments, since each correction loop that can be avoided provides an immediate advantage in terms of time and costs savings. Our newly developed software AutoForm-ToolDeflect greatly supports customers facing such issues.”

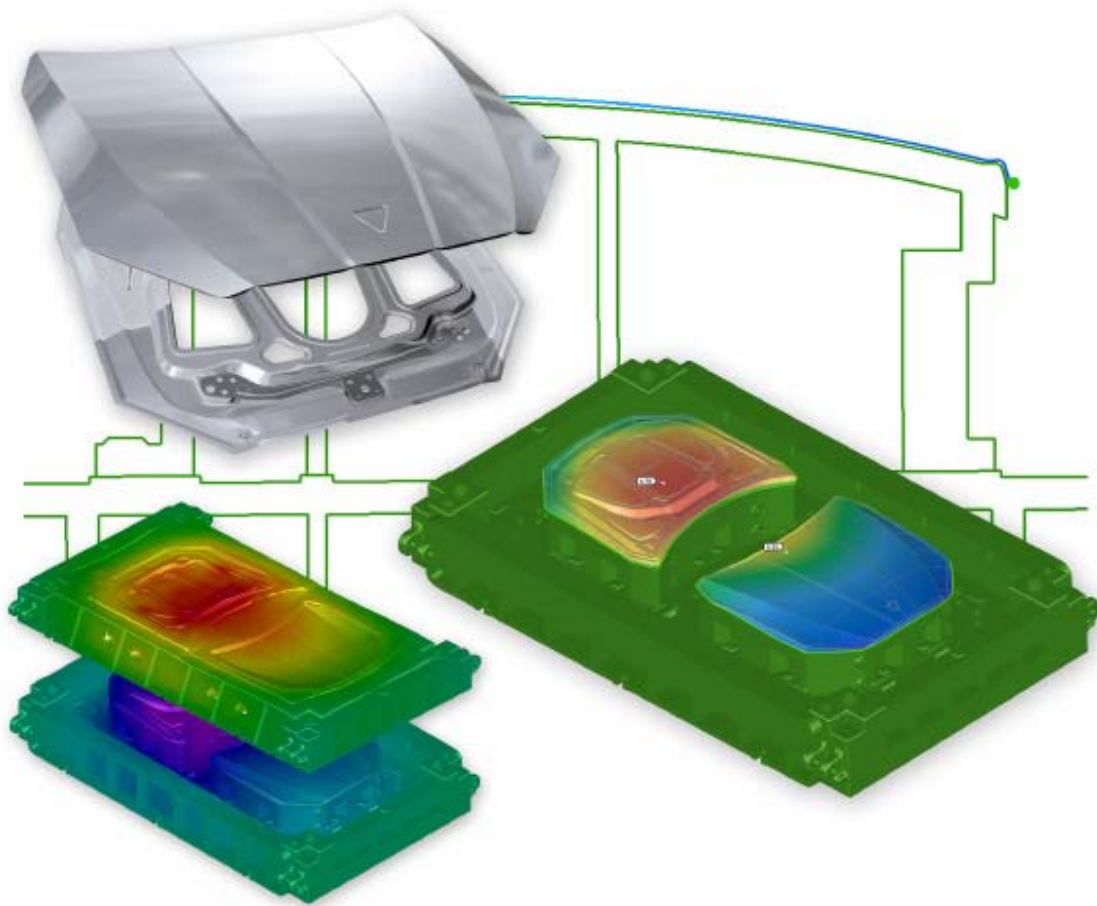
About AutoForm Engineering GmbH

AutoForm offers software solutions for sheet metal forming and BiW assembly process. With over 400 employees dedicated to this field, AutoForm is recognized as the leading provider of software for product manufacturability, tool and material cost calculation, die face design and virtual stamping as well as BiW assembly process optimization. All of the Top 20 automotive OEMs and most of their suppliers have selected AutoForm as their software of choice. Besides its headquarters in Switzerland, AutoForm has offices in Germany, The Netherlands, France, Spain, Italy, Czech Republic, Sweden, USA, Mexico, Brazil, India, China, Japan and Korea. AutoForm is also present through its agents in more than 10 other countries. For detailed information please visit: www.autoform.com

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AutoForm-ToolDeflect allows for the efficient analysis and compensation of elastic tool deflection.

If you need a high resolution image, please contact us.