

Software solution for the entire hydroforming process chain

AutoForm, Switzerland, offers software solutions for the die-making and metal forming industries along the entire process chain. They range from stand-alone modules for small and midsize companies to complete, integrated multi-module systems for large companies.

Due to a complete integration of all AutoForm software modules, concepts and results from earlier phases can be easily and directly used in later phases. This enables users to benefit from the power of simultaneous engineering, which optimizes time, cost and quality, thereby maximizing efficiency and productivity.

The use of AutoForm software improves reliability in planning, reduces the number of tryouts and tryout time, and results in higher quality part and tool designs that can be produced with maximum confidence. In addition, press downtime and reject rates in production are substantially reduced.

The worldwide release of AutoForm Hydroforming version 4.2 shows once more the innovation of AutoForm. The software AutoForm Hydroforming is a solution for the rapid analysis and simulation of the entire hydroforming

process. It is used by part designers, process engineers and tool/die makers to evaluate hydroforming tool designs and process layouts.

Based on AutoForm's clear and logical methodology, the user is guided step-by-step from the import of CAD geometry until the generation of the completed tools. The highly intuitive software provides handling of single and multiple parts. Several parts can be imported, copied, arranged and tipped relative to each other.

After arranging the parts they can be connected to build a chain. Therefore, it is possible to analyze several part arrangements and also different part combinations in the shortest time without using CAD software.

AutoForm Hydroforming software also provides an automatic cross-sectional part analysis including automatic filleting of sharp edges, automatic and manual part tipping, automatic creation of the addendum and inner fills, and generation of the separation surface. These features enable a rapid die and process design.

Other features include export of complete surface data, generation of the bending

line, automatic tooling concepts for tryout simulations, high accuracy of bending and hydroforming simulations, and fast design of multiple tooling concepts.

Automatic design and positioning of all required bending tools and steps can be undertaken prior to hydroforming. This means that the time-consuming manual definition of bending tools and of the bending process in a CAD system is no longer necessary.

Increasing complex part geometries often requires the preform forming step after the bending and before the hydroforming process. AutoForm Hydroforming provides a stage concept definition for the hydroforming process, starting from bending and preforming to hydroforming. AutoForm Hydroforming includes the definition of preforming tools without using CAD.

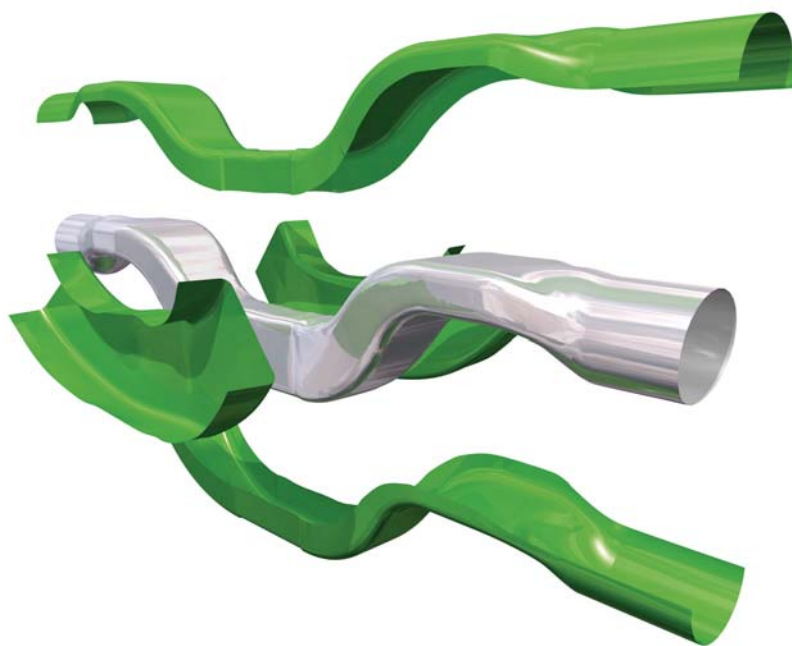
There is also support of complex semifinished products such as conical tubes and profiles, as well as tailor welded tubes with varying wall thickness and/or material properties. These features lead to improved part quality, increased process reliability, reduced tooling costs and shorter development time.

With over 200 employees, AutoForm is recognized as the leading provider of software for product manufacturability, tool and material cost calculation, die face design and virtual 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 Zurich, AutoForm has offices in Germany, The Netherlands, France, Spain, Italy, USA, Mexico, India, China, Japan and Korea. AutoForm is also present through its agents in more than 15 other countries.

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Ⓜ Autoform's hydroforming software provides handling of single and multiple parts



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