AutoForm-DieDesigner®
Software for Rapid Die Face Generation During Process Engineering

► Easy and rapid generation of die faces, including part modifications
► Rapid evaluation of multiple, alternative process concepts
► Easy generation of parameterized geometric die face models
► Considerable reduction of development time during process engineering
► Immediate tryout simulations with automatic updating of tools (in combination with AutoForm-FormingSolver / AutoForm-Explorer)
AutoForm-DieDesigner enables feasibility and process engineers as well as tool makers to rapidly create alternative die face designs for the complete sheet metal forming process. The selected die face design is used to automatically generate the tools required for tryout simulations with AutoForm-FormingSolver. This is then followed by a results evaluation with AutoForm-Explorer.

AutoForm-DieDesigner is predominantly used in the process engineering phase to rapidly generate die faces. The clear and logical structure of this software enables users to work step-by-step, from the import of CAD part geometry to the complete die face design.

With AutoForm-DieDesigner, the user gains an in-depth understanding and is able to validate the process layout as well as sheet behavior during multiple operations. These operations include not only deep drawing, but also all subsequent forming and trimming steps.

Precise geometry modelling in AutoForm-DieDesigner is achieved through morphing technology. By modifying wall angles, unfolding part areas and performing in-plane modification of part details while keeping the regions outside of the morphing untouched, the user can easily evaluate the best tooling concept and optimize the process.

AutoForm-DieDesigner is based on a fully associatively linked model of the entire die layout, which allows the user to easily modify intermediate operations as well as the final part geometry. When such modifications are made, the tooling geometries of all operations and the input for tryout simulations are automatically and instantly updated. As soon as an optimal die face design is determined, surfaces can be exported and processed further through, for example, AutoForm-ProcessDesigner for CATIA.

Since tooling of the entire forming process is easily and consistently defined, AutoForm-DieDesigner significantly improves tool quality and reduces development time in the early phases of process engineering.