BlankWizard and FormingWizard

AutoForm Engineering’s OneStep technology integrated in TopSolid for the treatment of stamped parts

AutoForm Engineering

AutoForm Engineering develops and markets specialized simulation and die face design software for the automotive and sheet metal forming industries. The company is recognized as a worldwide leader in the development of stamping solutions. BlankWizard and FormingWizard, co-developed by AutoForm Engineering and Missler Software, and integrating AutoForm Engineering’s OneStep technology, are available with TopSolid’Design and TopSolid’Progress.

BlankWizard and FormingWizard offer the following possibilities:

- Rapidly obtain blanks of sheet metal or stamped parts
- Assist operators in the estimation of material needed
- Identify risk zones during the stamping of the part
- Define strip creation layout for complex parts in the manufacturing of progressive dies

BlankWizard and FormingWizard can be used with the TopSolid’Design module for the treatment of very deformed parts created by stamping operations:

- Many standard interfaces (to deal with external files)
- Functions to convert shapes into sheet metal parts (CreaSheet module)
- Calculate the blank for stamped parts with BlankWizard
- Calculate surfaces and volumes of blanks to estimate material needed
- Materials database
- Analysis of thickness variations, thinning and possible deformations of the parts on FormingWizard

TopSolid and AutoForm: Excellent treatment of stamped parts
TopSolid’Progress

TopSolid’Progress is a fully integrated CAD module for progressive tool design. The software manages all cutting, folding, and deforming stages of the sheet metal, creation of the die set, addition of standard components together with their machining processes, creation of punches, non-standard matrices and draft creation in half the time needed by a generalist solution.

Blank creation, calculation of intermediary deformation stages and strip layout creation with TopSolid’Progress, BlankWizard and FormingWizard

TopSolid’Progress’ unfolding option integrates and enables the user to get the unfolding of complex parts and thereby design the strip layout in a completely associative process.

- Blank definition by simulation
- Blank definition by combined unbending and simulation

Strip creation enables all types of parts to be treated: simply cut and bent parts, connector and stamped parts.

- Definition of the position of parts on the strip (best orientation), width, distance, geometry of borders between stations, number of stations
- Dedicated functions to define cutting and folding operations
- Dedicated functions to define deformation operations. Surfaces tool box
- Inversed strip. Treatment by starting with the initial 3D part that is unfolded step by step

FormingWizard is used to calculate the geometry of intermediary stamping stages:

- Definition of intermediary projection stages
- Local unfolding with FormingWizard