AutoForm-Trim

**Software for Determination of
Optimum Trim Line and Blank Outline**

- ▶ Accurate determination of optimum trim line and blank outline
- ▶ Simultaneous development of trim and draw dies
- ▶ Shortened design cycle for the complete tool set
- ▶ Substantially reduced laser-trim tryout time
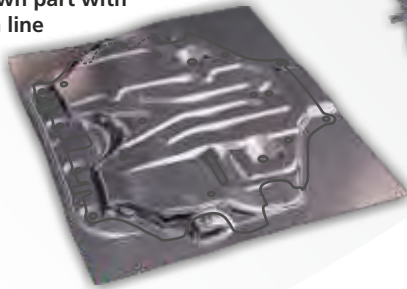
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AutoForm-Trim

Tryout of Trimming Dies

AutoForm-Trim in combination with AutoForm-FormingSolver is an essential tool for the determination of blank outlines and for the tryout of trimming dies used to find the optimum trim line. The software enables users to design trimming tools simultaneously with the draw die.
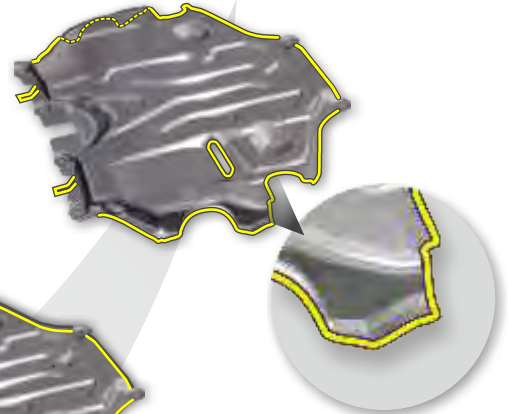
Optimum blank outline is necessary for near-net-shape manufacturing (crash forming). The blank outline is optimized to ensure that the desired shape and dimensions of the part boundary are obtained at the end of the crash forming process. The advantage of AutoForm-Trim over an inverse one-step simulation, which can also be used to find the blank outline, is the consideration of not only one, but several forming steps and results in much greater accuracy.

Optimum trim line is necessary for multi-operation stamping process. The trim line is optimized to ensure that the desired shape and dimensions of the part boundary are obtained at the end of those operations which follow the trimming operation. AutoForm-Trim automatically adjusts the trim line to remove or add sheet metal until the desired part boundary is achieved.
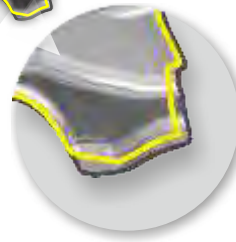
Restricken part with the desired part boundary and trim line after final AutoForm-Trim iteration

Restricken part with the desired part boundary (yellow) and trim line before initial AutoForm-Trim iteration (gray)

Drawn part with trim line

Trimmed part

The design cycle is shortened with AutoForm-Trim since it enables the user to design trimming tools simultaneously with the draw die.

A significant reduction of lead time is achieved since previously required laser-trim tryouts are reduced to a minimum.

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