

A CAD-CAE-CAM approach to manufacture the car door handle through SPIF

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Abstract: The car industry is looking for less expensive ways to produce various car body components. One of those processes is the single point incremental forming process which doesn't require a mold or die for each component, but only a good knowledge of the process to obtain a good accuracy of the components.

The purpose of this paper is to present the stages necessary to manufacture a portion of a car body. Thus, a CAE and CAM model is proposed for an existing model of door handle CAD to be produced through SPIF. After running the finite element method analysis it is shown that certain car body parts can be produced successfully through SPIF for which the process was developed in the first place.

Keywords: single point incremental forming, deformability, steel.
