# Sheet Thinning Prediction in Single Point Incremental Forming

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**Keywords:** sheet metal process, FEM analysis, incremental forming

**Abstract.** Incremental forming processes are characterized by a well known and particular feature: any deformation across the sheet plane determines sheet thinning, since the blank is fully clamped by means of a proper equipment. As a consequence, the availability of effective and reliable CAE tools capable to supply an accurate prediction of sheet thinning as a function of process parameters, represents a strong requirement for a wider practical application of incremental forming.

The already available theoretical models (i.e. the sine law) do not provide, on the other hand, satisfactory results. Therefore in the paper a couple of numerical analysis strategies was applied to simulate simple incremental forming processes, as well as a proper experimental equipment was developed to verify the accuracy of the numerical predictions.