

عنوان مقاله:

Optimum Designing of Forging Preform Die for the H-shaped Parts Using Backward Deformation Method and Neural Networks Algorithm

محل انتشار:

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خلاصه مقاله:

In a closed die forging process, it is impossible to form complex shapes in one stage, and thus it becomes necessary to use preform dies. In the present study, Backward Deformation Method and FE simulation via ABAQUS software has been used in order to design preform die of the H-shaped parts. In the Backward Deformation Method, the final shape of the part is considered as a starting point and using a specific method, a plastic returning path is predicted. Afterwards, using FE results obtained by simulation of the forging process, an artificial neural network is designed to predict the material behavior under various conditions and for different kinds of preform to select optimum preform dies.

کلمات کلیدی:

Forging Preform Die, Backward Deformation Method, ABAQUS, Artificial Neural Network

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