

## عنوان مقاله:

Prediction of the Dead Metal Zone Profile in the Extrusion Process of Flat Dies Using Energy Minimization Method

## محل انتشار:

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## خلاصه مقاله:

Formation of dead metal zone in flat dies is an important issue in the direct extrusion process. In the present work, using the improved velocity field and geometrical parameters of the dead metal zone curve, the required power of the extrusion process is determined. Since the material tends to use minimum energy, with minimizing the upper bound energy, the geometrical parameters of dead metal zone profile are approximated. This method does not depend on the exit section and is applicable to nonsymmetrical dies as well. Analytical results for non-symmetrical T-die are in (good agreement with the results of simulations of the finite element software (ABAQUS 6.9).

## کلمات کلیدی:

Direct extrusion; Flat die; Dead metal zone; Velocity field; Upper bound method

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/212749>

