

## عنوان مقاله:

Hole-flanging of ۲۲۰۵ Dual-Phase Steel using Incremental Forming Process

## محل انتشار:

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## نویسندگان:

Amir H. Roohi - *Department of Mechanical Engineering, Faculty of Industrial and Mechanical Engineering, Qazvin Branch, Islamic Azad University, Qazvin, Iran*

Seyed Jalal Hashemi - *Department of Mechanical Engineering, Faculty of Enghelab-e Eslami, Tehran Branch, Technical and Vocational University (TVU), Tehran, Iran*

## خلاصه مقاله:

In this study, hole-flanging of a dual-phase steel sheet is conducted using incremental forming approach. In this process, a hole with a certain diameter is pre-cut on a sheet. Then, this hole is transformed into a cylindrical flange shapes, by contacting the forming tool with the hole edges. During the process, the tool is moved in spiral paths. The parameters affecting the height and thickness distribution of the formed flange include axial step, radial step, and rotational speed of the tool. Results show that the axial step has the most significant effect on the process, among other parameters; when the axial step is tripled, the flange thickness increases by ۱۹%. On the other hand, a decrease in the radial step decreases the flange edge thickness. When the radial step is tripled, the flange thickness increases by ۸%, while the flange height decreases about ۳%.

## کلمات کلیدی:

Dual-Phase Steel, Hole Flanging, Incremental Forming, Process parameters

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1194561>

