

عنوان مقاله:

Analytical, Experimental and Finite Element Investigation of Internal Pressure Effect in Hydroforming Process on Metallic Bellows Produced from Thin Wall Tube of Austenitic Stainless Steel Grade ٣١۶L

محل انتشار:

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خلاصه مقاله:

One of the bellows producing method is hydroforming process .Whereas some factor of hydroforming process specially internal pressure affects on final characteristics produced bellows such as bursting, wrinkling and wall thickness distribution. In this paper the effect of internal pressure factor in final quality of produced bellows will be investigated. In simulation of process, ABAQUS/Explicit version 5.9 code was used, and also experimental examinations for investigation the effect of this factor has done. The results obtained from methods of analytical, finite element and experimental in this paper has good agreement with each other. Also, the conclusions of this research for .prediction of suitable forming pressure could be used as a basis of designing a new type of metal bellows

کلمات کلیدی: Bellows, Hydroforming, Finite element method, Stainless steel ۳۱۶L

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