The Effect of Thermal Coefficients on Temperature Condition of the Blank in FE Analysis of Warm Hydro mechanical Deep Drawing Process

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***Abstract*—A challenge to conduct the most accurate FE simulations in Warm Hydromechanical Deep Drawing (WHDD) process is to predict temperature condition of the blank which was held between the heated dies and cooled punch. This is possible by knowing effects of thermal coefficients in the FE analysis of WHDD process and modeling of the heat transfer between the blank and tools accurately. In this study effects of thermal coefficients on the temperature condition of the blank in the FE analysis of WHDD to conduct accurate FE simulations of the process. So, it can be possible to predict deformation behavior of the materials accurately and determining the proper forming conditions in less time and shorting development time.**

***Index Terms*—Warm hydroforming, Finite Element Analysis, Sheet metal forming.**

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