Clinch Process Simulation Using Diffuse Elements

Authors : Benzegaou Ali, Brani Benabderrahmane

Abstract : This work describes a numerical study of the TOX–clinching process using diffuse elements. A computer code baptized SEMA "Static Explicit Method Analysis" is developed to simulate the clinch joining process. The FE code is based on an Updated Lagrangian scheme. The used resolution method is based on an explicit static approach. The integration of the elasto-plastic behavior law is realized with an algorithm of Simo and Taylor. The tools are represented by plane facets.