

Nowadays, the simulation of forming process is rather well integrated in the industrial numerical codes. However, in order to take into account the possible modifications of the tool during rates of working, a dedicated numerical software is currently developed within the laboratory Roberval, this software allows to simulate forming process. The tool is discretized by boundary elements and the product, which is subjected to non-linearities, is discretized by finite elements. For the product, an isotrope law of behaviour is integrated, and the damage is taken into account by the uncoupled Rice and Tracey model. This paper deals with a contact algorithm, coupling boundary elements and finite elements, programmed in the software KSP. For that, friction is described by the Coulomb law and the resolution of contact problems is done by the penalty method. An adaptive step has been developed in order to increase the robustness of the contact algorithm