

EXAMINATION OF NUMERICAL BLAST MODELLING TECHNIQUES USING AUTODYN

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Based on cost alone it is required, for various scenarios, to conduct numerical investigations in advance of testing. However there are often significant computational penalties experienced when modelling complex blast problems.

Is it possible to achieve a sufficiently detailed result with reasonable simplifications? This paper describes the possibility of performing numerical calculations in a optimized time-frame.

The detonation of uncased ammunition in a reinforced concrete structure is simulated in a hydrocode calculation by using Autodyn 3D. The scope of the paper is a description of the model set up for such computations. The results from several simulations are compared.