

MODELLING IN SOIL DYNAMICS EXPERIMENTS WITH A SHOCK TUBE

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Model tests or even small-scale tests have the advantage that in comparison to 1:1 tests they require a much smaller expenditure. In a particular case, however, it must be verified to what extent such tests are capable of giving the results sought for. In this contribution the basic problems are discussed that confront one with small-scale tests and model tests in the area of soil dynamics. model tests with buried charges and tests in shock tubes of different. sizes are presented, and the results therefrom are discussed, especially with respect to their extrapolation and use for other cases. The tests were carried out both in Switzerland and in the Netherlands within the framework of the general investigations on soil liquefaction due to conventional (mine, bombs) and nuclear weapons (air induced groundshock) . The blast loading tests are illustrated by a film.