

# **P77 A Modular Building Block System for Lab Scale Explosive Testing of Urban Type Configurations**

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## **Abstract:**

The first part of this study is dedicated to the description and evaluation of a modular laboratory-scale building system for the reduced-scale model reproduction of more or less complex urban-type configurations, in which the necessary measurement equipment is integrated to allow for the determination of the blast wave propagation and pressure profiles, due to the detonation of a scaled explosive charge. In a second phase, a reduced-scale ( $\pm 1/33$ ) model of the survival container – an ISO 20 foot container in a given Hesco-bastion defensive barrier configuration, used in military compounds – is built and tested using the modular system. Finally numerical analysis of the blast-wave propagation in the reduced scale model of the survival container is carried out in order to come up with a validated numerical model for the realistic reproduction of the reduced-scale explosive tests.

## **Notes:**