

## **BLAST EFFECTS OF CYLINDRICAL BARE CHARGES**

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### **ABSTRACT**

The objective of this paper is to present the numerical determinations of cylindrical bare charge blast parameters depending of the azimuth angle and to compare it to experimental reference data. This work allows us to determine TNT equivalent mass ratio in the case of cylindrical charges.

Calculations are performed for TNT cylindrical charges with  $L/D = 4/1$  and  $L/D = 6/1$  in axi-symmetric 2D configuration. The numerical code used is Ouranos hydrocode with Eulerian processing. The air blast parameters are calculated in different radial lines from the center of the charge. The effect of the bridge waves, described by many authors, is quantified.

The numerical simulations are then compared to experimental reference data, which are reproduced with a very good accuracy.