

BLAST SIMULATION FACILITIES OF THE TECHNICAL RESEARCH CENTRE OF FINLAND

LAINEN, B.; MAEHOENEN, T.; NYMAN, B.

We made the first blast wave tests at VTT in 1964. Then we had a 150 mm diameter air-driven shock tube with the 10 bar compression chamber.

About two years later we got two shock tubes with 100 bar compression pressure. The nominal sizes of the shock tubes we still are using are 150 and 500 mm.

The really good possibilities for blast wave testing we did not get until the special laboratory was completed in the central public shelter of Otaniemi area in 1972 - 73.

In the laboratory there are beside the operating and measuring rooms the testing tunnel (1.5 x 1.5 m) dimensioned for 6 bar overpressure, the bunker (20 m³) dimensioned for 1.5 bar overpressure and the testing room (100 m³) dimensioned for 0.15 bar overpressure.