

# AIRBLAST EQUIVALENT WEIGHTS OF VARIOUS EXPLOSIVE CHARGE SHAPES FOR TESTING STRUCTURES

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The testing of various security-related and civilian protective structures is often done with explosive charges having cylindrical and other shapes. At long ranges, the characteristics of the blast wave are hardly affected by a complex charge configuration.

However, at scaled distances between the charge and the test structure which are less than about 7 meters/Kg<sup>1/3</sup>, there exists the phenomenon of blast wave enhancement relative to the more conventional hemispherical or spherical shapes.

This effect can be put to advantage using the airblast analysis tool of an Equivalent Weight concept. Relatively large Equivalent Weight factors based on actual test data are presented providing a useful engineering tool to the Explosion Testing designer.