

# The characteristics of fragments from embedded warhead

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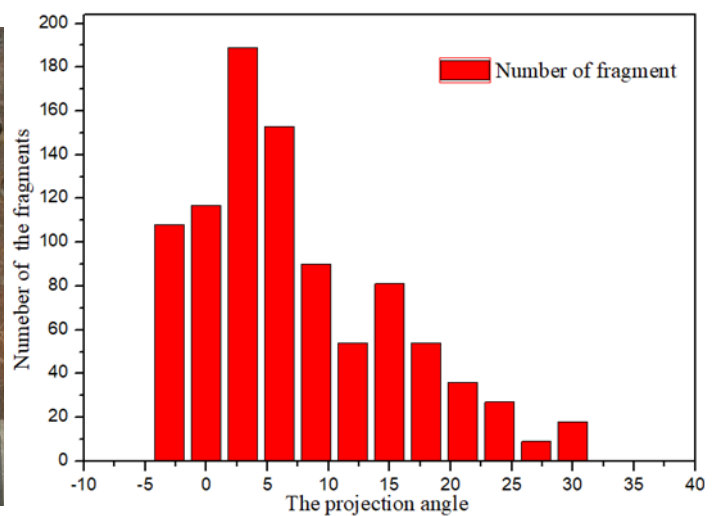
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The Embedded warhead is a kind of warhead which is embedded into the target plate by its own kinetic energy and uses its effective fragments and whole or residual projectile to interdict the target. The fragments generated by the embedded warhead embedded in the target plate will impact the target plate and ricochet, which makes the dispersion of the fragments significantly different from that of warhead which is detonated in the air.



the spatial distribution of fragment  
on the distribution plate



The relationship between the fragment number  
and the projection angle

There are following conclusions can be drawn:

(1) After the detonation of the embedded warhead, the projection angle of the fragments generated by the casing near the target plate was less than 0, that is, the fragments flied downward. After the fragments impacted the target plate, they ricochet due to the incident angle greater than the critical ricochet angle, forming typical trace rings on the target plate. The ricochet fragments still had high velocity, which can be considered as effective fragments.

(2) The average direction angle of the fragments was tilted upward ( $6^\circ$ ) due to the effect of ricochet of the fragments, which enhanced the damage effect of the fragments from the embedded warhead, and the blocking diameter was 25m for human being.

(3) The distribution of fragments from embedded warhead was obviously different from that from warhead in the air, there was an intense strip due to the effect of ricochet of the fragments.