

PENETRATION PHENOMENA  
(3000-3099)

Subtopics

Hypervelocity impact; ballistic penetration and cratering due to projectile impact.

PENETRATION PHENOMENA  
(3001-3099)

Bibliography

- 3001 Zaid M and Paul B  
MECHANICS OF HIGH SPEED PROJECTILE PERFORATION  
Journal of the Franklin Institute  
1957, Vol. 264, pp. 117-126.
- 3002 Paul B and Zaid M  
NORMAL PERFORATION OF A THIN PLATE BY TRUNCATED  
PROJECTILES  
Journal of the Franklin Institute  
1958, Vol. 265, pp. 317-335.
- 3003 Zaid M and Paul B  
ARMOR PENETRATION SURVEY  
Ordnance  
January 1956, pp. 609-611.
- 3004 Van Valkenburg M E, Clay W G and Huth J H  
IMPACT PHENOMENA AT HIGH SPEEDS  
Journal of Applied Physics  
1956, Vol. 27, pp. 1123-1129.

An analytical investigation is made of the perforation of a thin plate by truncated projectiles. Solutions are presented in graphical form. The strength of the plate is assumed to be negligible, which experimental data show is accurate for high velocities. Solutions are primarily concerned with loss of projectile velocity as it passes through the plate.

A study of high speed, metal-to-metal impact in the velocity range of 1 to 5 mm/ $\mu$  sec using 1/8 inch diameter spherical pellets is described\_\_\_\_\_. Experiments relating to the mechanism of cratering and the perforation of thin targets are presented\_\_\_\_\_. (Authors' abstract)

Projectiles given high velocities by putting a hollow cone in one face of a cylindrical explosive charge.