

Tunable Cylindrical Shaped Charge Concept

Need:

- Robust and compact shape charge to produce high-speed penetrating jets
- Flexible design to tailor output to specific targets (jet speed, length, shape, material independently controlled)

Approach:

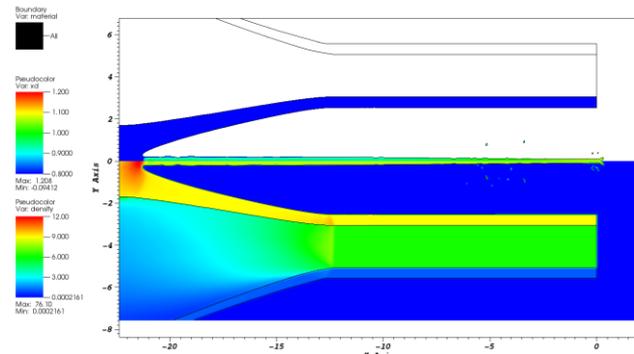
- Developed de-phased detonation to provide direct control of jet velocity profile
- Cylindrical design to enable non-stretching or controlled stretch rate jet

Benefit:

- Standoff independent, non-stretching, high-speed jet (penetration capability constant from tip to tail of jet)
- Stretching jet at controlled rate
- Charge modules can be coupled together to increase jet length

Photo/Image:

Simulated jet formation from 60mm diameter liner



A new concept with potential national security, law enforcement and commercial applications