

KINETIC ENERGY – BLUNT TRAUMA PROJECTILES. DANGERS, LIMITS AND OPPORTUNITIES

Massimo ANNATI, Captain, ITN

The use of kinetic energy – blunt trauma projectiles by means of shotguns, rifles, and grenade launchers has a long history.

Usually they supplement the most traditional riot-control means, like the truncheons and the tear-gas, extending the range over the former and ensuring target discrimination over the latter.

Many types of projectiles were developed, in order to ensure adequate precision, and release of the right amount of energy to target (sufficient to achieve the riot-control task, yet not exceeding the limit of causing permanent damage).

Unfortunately most of the solutions proved to be inherently dangerous and often caused serious casualties and, in case, fatal consequences.

Loss of stability, and therefore loss of precision and lack of control over the impact surface, is one of the most typical problems.

Excess of energy due to short range engagement is another problem.

Additionally these weapons, due to the effect mechanism, require strict respect of the rules (through factors like training, discipline, leadership, accountability, rules of engagement) in terms of minimum range, aiming point, authorized targets.

More recently different solutions were developed, trying to reduce or eliminate the above mentioned problems, addressing both the launchers and the projectiles.

The presentation will discuss the outcomes of two developments already in service, based into different approaches: the Attenuating Energy Projectile and the FN303.

The result of an Italian MoD-funded development will also be presented: a special rifle with variable muzzle velocity.