

# Elbit Systems Land Artillery Ammunition Portfolio



# Elbit Systems Land Artillery Ammunition Portfolio

## Comprehensive Advanced Artillery Solutions

Elbit Systems' name is synonymous with excellence in artillery systems with an outstanding global reputation for innovation and reliability. With the acquisition of IMI, Elbit Systems offers unmatched experience and a high-performance array of combat-proven, advanced artillery ammunition solutions to meet the range of military requirements worldwide, for troops in the modern battlefield. As a world leader in the field, the expertise in both ammunition and weaponry gives Elbit Systems' artillery solutions a unique edge.

## High-level production capabilities and sophisticated facilities

Elbit Systems' advanced production infrastructure encompasses an area of over 20,000 square meters, and covers all aspects of manufacturing, assembly, packing, metallurgic, ballistics, full in-house live firing testing, and strict quality assurance and control systems. The ammunition plant and facilities feature highly skilled staff and a production capacity of more than 250,000 bombs of all calibers per year.

## Arsenal of advanced 155mm artillery ammunition

In modern battlefield challenges, the aim of advanced artillery is to improve the effect on targets along with minimizing the logistic footprint. The M454 (Super HE) has five times the effect of traditional HE projectiles, which means achieving target neutralization with only one-fifth of the ammunition. The unified charge module (UCM) enables the artillery units to deal with a single type of modular charge, thus minimizing the logistic footprint by 50%.

Elbit Systems' battle-proven precision artillery ammunition with long-range capabilities includes highly effective extended-range High-Explosive (HE) and Super-High Explosive (S-HE) projectiles and advanced charge systems for 155mm gun firing systems with a 39, 45, and 52 caliber barrel.





### › M107-A3

#### **Extended-Range version of the traditional M107 projectile**

The M107-A3 projectile is compatible with all standard Howitzer guns. Its improved, welded driving band expands the projectile's durability to withstand up to 6 units of modular charges or charge 11, which is limited with the traditional M107 projectile. This durability enables longer ranges and compatibility with any gun type of any caliber. The maximum range is 22.5 - 27 km, depending on the caliber.



### › M454

#### **Super-High Explosive (S-HE) 155mm artillery projectile**

The M454 Super - High Explosive (S-HE) artillery projectile introduces a unique solution based on a pre-fragmented drogue parachute warhead, designed to detonate at an optimum height above the target. The M454 is 5 times more effective against infantry and light armored vehicles (LAV) compared to standard HE projectiles. The projectile is compatible with all 155mm NATO 39, 45, and 52 caliber guns, designed to enable a maximum range of up to 22 - 28 km depending on caliber.



### › M150 Smoke projectile

#### **Advanced 155mm smoke projectile**

The advanced smoke projectile offers extended screening capabilities, with a longer duration of 3 minutes (compared to 2 minutes in traditional smoke projectiles), as well as a range of 22 km. The projectile delivers thicker screening with 5 smoke canisters (compared to 3 canisters in traditional smoke projectiles).



### › M401

#### High-Explosive Extended-Range Base Bleed (HE-ER-BB) 155mm artillery projectile

Primarily used for blast and fragmentation against infantry troops and soft material targets, the M401 High-Explosive Extended-Range Base Bleed (HE-ER-BB) projectile can be fired from 39, 45 and 52 caliber 155mm artillery guns using all types of propelling charges, and has a deep-cavity fuze design for point-detonating (PD) and proximity (VT) fuzes. The projectile's low-drag aerodynamic shape, coupled with base-bleed technology, increases the range while maintaining accuracy. The M401 is designed to enable a maximum range of 28-36 km, depending on the gun caliber. The high-explosive projectile contains 12 kg of TNT in a thin-walled, high-strength, high-fragmentation steel-alloy body.



### › M481

#### High-Explosive Extended-Range Boat Tail (HE-ER-BT) 155mm artillery projectile

Primarily used for blast and fragmentation against infantry troops and soft material targets, the M481 HE-ER-BT projectile can be fired from 39, 45, and 52 caliber 155mm artillery guns using all types of propelling charges. The projectile's low-drag aerodynamic shape increases the range while maintaining accuracy. The M481 is designed to enable a maximum range of up to 31 km. **The high-explosive projectile is ~200% more effective than the M107 projectile.** It contains 10.5 kg of TNT in a thin-walled, high-strength, high-fragmentation steel-alloy body. The M481 is NATO standard Joint Ballistic MoU (JBMOU) compliant.



# Elbit Systems Land Artillery Ammunition Portfolio



## › Bi-Modular Artillery Charge System (BMACS) Top Charge Module (TCM) and Bottom Charge Module (BCM)

The Bi-Modular Artillery Charge System (BMACS) is a cost-effective modular charge system for 39, 45 and 52 caliber 155mm gun firing systems, capable of firing projectiles from the M107, ERFB-BB, ERFB-BT and M483 families, or their equivalents. The BMACS offers operational simplicity and safety and has a long shelf life.



## › Unified Charge Module (UCM) Maximum modularity - improved performance

UCM is a unique, uni-modular propellant system designed to minimize the logistic footprint and significantly reduce the operational costs related to ammunition handling in the artillery unit. The cost-effective UCM enables automatic and semi-automatic guns to increase their firing rate along with improving their accuracy. This is achieved by handling only a single type of modular charge with higher consistency of velocity and minimized barrel tear. UCM is Joint Ballistic MoU (JBMOU) compliant.



## › M910 - ETFA Inductive Electronic time fuze for artillery projectiles

The M910 fuze is suitable for use on all projectiles with intrusion and contour in accordance with STANAG 9216 (MIL - STD - 333B) for 105mm to 203mm calibers. The fuze initiates all types of carrier shells at airburst (smoke, illuminating and Super- HE). The fuze can be thread adapted according to customer requirements.

Mode of operation and time are set by means of an Elbit inductive fuze setter or any other setter which in compliance with STANAG 4369 and AOP 22. Ease of use and durability enable operation in battle conditions, where time and responsiveness are crucial.