

SPEAR

120mm autonomous soft recoil mortar system for light-wheeled platforms; unprecedented tactical mobility, lethality, and accuracy



Elbit Systems' SPEAR is a fully autonomous, vehicle-mounted 120mm soft recoil mortar system for high-mobility platforms. SPEAR delivers effective fire support by combining the flexibility and lethality of accurate mortar fire with exceptional tactical mobility. The mortar is a derivative of the combat-proven soft recoil mortar which is muzzle loaded and turntable-mounted and is being used extensively by the US Army, NATO, the Israel Defense Force and others.



KALYANI



BF ELBIT Advanced Systems Pvt. Ltd.

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Improved area coverage and survivability – equipped with a revolutionary, patent-pending recoil system that reduces the 120mm barrel's firing loads from 120 tons to less than 10 tons, SPEAR can be mounted on a variety of high-mobility light vehicles such as HMMWVs, jeeps and other rapidly deployed wheeled platforms.

Command and Control – SPEAR is equipped with computerized aiming and navigation devices, enabling the mortar system to be operated autonomously and aimed without the need for external reference points. SPEAR can be integrated with a variety of battle management systems (BMS) and includes technical fire management, scheduled fire plans, a prioritization target process and an attack result forecast. The system also manages ammunition, personnel, assignments and serial number equipment reports.

Flexible configuration – the system can operate independently with forward observers and/or deployed forces. The system can also be deployed on a standalone basis or as part of the battery/platoon configuration.

Improved accuracy – targeting information is relayed to the fire control system (FCS) which computes the ballistic data and orders the electric drive system (EDS) to position the mortar barrel to the exact azimuth and elevation. The mortar fire control system (MFCS) receives feedback from the north finding system (NFS) and inclination gauge units (IGU).

Enhanced situational awareness – the system generates a comprehensive tactical picture that includes both friendly and enemy forces along with additional battlefield elements, enabling accurate threat analysis and an attack result forecast.

Key Benefits

- Adaptable to a wide range of highly-mobile light vehicles due to a unique soft recoil mechanism
- Rapid deployment, improved area coverage and survivability
- Installed on a standalone basis or as part of the battery/platoon configuration
- Automated and accurate mortar barrel laying
- Common operational picture and enhanced situational awareness
- Increased fire power and efficient use of ammunition

Key Features

- Second-generation of the combat-proven vehicle-mounted mortar – the CARDOM
- Suitable for a range of highly-mobile light vehicles
- For use with all types of qualified 120mm smooth bore ammunition
- Rapid deployment; in and out of action within 60 seconds
- High level of accuracy (30m circular error probability)
- Deployed by 2 to 3 crew members
- Rate of fire: burst up to 15RPM
- Manual backup of aiming gears (elevation and traverse)