

DEVELOPMENT

GUIDANCE KIT FOR 262 mm ROCKET



The Guidance Kit is a system developed to enhance the accuracy and precision of our artillery rocket Hurricane. It transforms existing 262mm high explosive artillery rockets into affordable missiles. By integrating guidance kits into artillery shells, technology like GPS or inertial navigation increases the chances of hitting the intended target with greater accuracy and reduced CEP. Our solution for improved navigation and calculation of flight commands is carried out using aided INS (AINS) navigation based on INS or GPS. This capability allows the missile to maintain an acceptable trajectory even when GPS signals are blocked or jammed.

MAIN SPECIFICATIONS:

- accurate navigation
- high overload resistance
- lightweight, low cost
- integrated section - navigation, guidance & control

The Purpose

The Guidance Kit (GK) is crucial for military missions to ensure effective and efficient weapon delivery. Rockets fitted with our GK provide artillery units with accurate fire support capabilities in areas where collateral damage is a concern, resulting in more precise targeting and reducing the risk of civilian casualties.

The INS/GPS Guidance Kit

The GK combines both INS and GPS technologies to leverage the strength of the guidance system and provide an accurate and reliable trajectory. Our guidance section is based on flight path steering (FPS), impact point prediction (IPP) and GCS pre-set trajectory points with enabled communication with the GCS during mission setup. GPS signals allow munitions to determine their precise location in real time, enabling them to navigate towards the target with high precision. In this scenario firing accuracy at any range (CEP) is less than 10m.



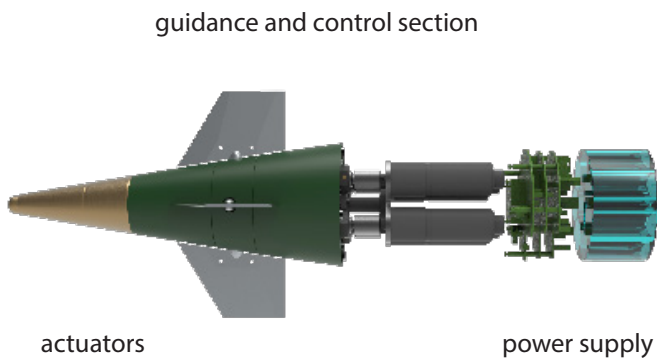
INS Guidance Kit

The simpler and more compact guidance kit uses inertial navigation to correct the rocket's flight in the first 40 seconds of launch. This kit does not require a ground station or changes to the launch container. The guidance kit itself is slightly smaller than traditional guidance kits because it has a shorter operating time.

The shell's design and launcher modifications

The missile and launcher may need some mechanical and electronic changes to work with the guidance kit. The fins need to be able to rotate freely. The warhead fuse needs to be modified. If the missile uses the INS/GPS guidance kit, a ground control station (GCS) is needed to set the mission.

GUIDANCE KIT COMPONENTS



TECHNICAL CHARACTERISTICS:

- | | |
|-------------------------|----------------|
| • Calibre | 262 mm |
| • Range | 70 km |
| • GK's mass | 8 kg |
| • CEP - without GPS | < 0.3% |
| • CEP - with GPS | < 10 m |
| • Operating temp. range | -30°C to +60°C |

BENEFITS

- aided INS (AINS) based on INS or GPS depending on availability;
- improved targeting capabilities;
- demonstrated accuracy is less than 10m CEP with GPS;
- affordable solution for accurate navigation;
- reduced number of projectiles required to execute a mission.