MANGAL NET SYSTEM



ENGINEERED TO PROTECT

Designed for demanding operational environments, this fully autonomous counter-drone system combines rapid deployment, reliable detection, and proven resilience against electronic warfare and jamming.

With flexible power supply options, up to 12 hours of continuous operation, and seamless integration potential with external C2 platforms, it delivers a highly adaptable solution for modern force protection.

The system offers a practical, field-proven approach to countering emerging drone threats, can be reloaded with six net-equipped capsules in a maximum of 15 minutes. Rapid reloading in as little as one minute is possible when spare launcher units equipped with pre-loaded cartridges are available.

CHARACTERISTICS

The system is fully autonomous and can operate without an operator, external control unit, or supporting infrastructure, provided that the safety lock has been released. Also has been tested for resilience against electronic warfare (EW) and jamming. It remains fully functional under the tested conditions, demonstrating its ability to operate in electronically contested environments.

- Fully autonomous system that can detects, tracks and engages multirotor UAVs automatically
- Design for Armoured & wheeled vehicles, UGV platforms, Static positions and Critical assets
- Daytime/thermal camera
- AI visual detection identifies and classifies aerial threats in real time
- Effective engagement range 5 – 15 m
- Reloading time for 6 capsules with nets: max 15 minutes
- Two independent safety
- Vertical coverage sector 70°
- Horizontal coverage sector 90°
- Can be integrated into C2 platform

POWER SUPPLY

- Built-in internal battery with 12 hours operating time
- External battery module
- Vehicle onboard power network 12V-24V
- Tested in EW environment with full funcionality maintained
- Two independent safety mechanisms
- Servis life 2 years





DETECTION CAPABILITIES

Detection performance depends on the target's background and the prevailing environmental conditions. The smallest drone tested to date is 7 inches in size; smaller drones have not been tested, as they are not considered operationally relevant.

The daylight camera's performance is reduced in low-light and nighttime conditions, and reliable classification of FPV drones against dark backgrounds may be challenging. Under these conditions, the system relies on its thermal imaging camera. No other general operational limitations have been identified.

PARAMETERS

Launchers	6 units
Net size after deployment	5,5 × 5,5 m
Vertical coverage sector	70°
Horizontal coverage sector	90°
Dimensions (deployed)	480 ± 10 × 350 ± 10 × 310 ± 10 mm
Weight	27,0 kg
Autonomous operation	8 h (18 000 mAh)
Protection rating	IP 54
Response time from target detection to capsule launch	≤ 1 s
Net deployment time after capsule launch	≤ 0,3 s