

TRT

TACTICAL REMOTE TURRET



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DENEL VEHICLE SYSTEMS



The Tactical Remote Turret (TRT) is operated by one person and provides self protection and ground fire support for Light Armoured Vehicles (LAV), Mine Protected Vehicles (MPV) and Infantry Combat Vehicles (ICV).

Overview

The TRT Family of Turrets is intended for a range of applications on Armoured vehicles capable of supporting various weapon configurations. With a low-weight design philosophy in mind, the system provides the required firepower in a defensive and offensive role to high mobility tactical vehicles. Its high fire-power and low weight makes it also feasible for amphibious applications.

The TRT base structure and Man Machine Interface (MMI) is common for all configurations supporting a dedicated weapon cradle for the configuration of choice. The TRT Turret's armament suite consists of a rapid fire cannon, co-axial machine gun as well as possible anti-tank Guided Missiles (ATGM).

Electrical System

The system is equipped with electro-mechanical drives and sight equipment giving it all round observation, fast reaction time and accurate weapon firing abilities. The system is equipped with safety interlocks and mechanisms for effective and safe use of the weapons from behind cover.

Operational use

The system is controlled remotely while the operator is seated under protection inside the vehicle. The operator interface is intuitive and easy to understand. The video with symbology as displayed on the MMI can be made available to secondary systems such as BMS and a commander display.

Weapons and Ammunition ready to fire

Dual feed Cannon: 20 to 30mm Typical
300 - 400 ready rounds

Co-axial machine gun: 7.62 mm Typical
1 000 ready rounds

ATGM 2 x Semi-automatic Command to Line of Sight (SACLOS) can be integrated

Typical Dimensions

Height < 1 120mm
< 1 420mm incl sight

Sweep radius < 1 500mm excl Barrel

Weight 900 kg – 1 800 kg (complete with weapons & ammunition depending on configuration and protection)

Operational Envelope

Traverse n x 360°

Elevation -15° to +55°

Prohibited zones Controlled in azimuth and elevation

Performance

Traverse speed 55°/s

Elevation speed 55°/s

Stabilisation Fully stabilised for observation and accurate firing on the move

Tracking Auto track with manual video lock-on

Sighting System

An independent stabilized sight provides silent all round surveillance. Fitted with state of the art electro-optics having its range and effectiveness determined by the choice of weapons. Targets can typically be identified at >4 000 m by day and >3 000 m during night conditions.

Day Continuous zoom 2.5° to 22.5°

Thermal Continuous zoom 2.5° to 22.5°

Thermal (IR) camera for detection of target at > 12 000 m at night (Various options)

Laser range finder > 10 km with 5m accuracy (Eye safe according to IEC 60825-1 Class 1)

Operator Control Unit

The MMI is integrated with the ballistic computer offering a space-saving solution inside the vehicle

Video interface with 10.4" LCD touch screen display (mounted at any location inside the vehicle)

Display language of choice with menu driven software

User-defined "game-boy", yoke or joystick control mechanisms

Ballistic calculations with manual entry of environmental parameters

Rapid Target Designation

Unique functionality for fast target acquisition and locking of target auto tracker

Protection

Optional depending on user application

Qualification

MIL-STD-810 G Environmental conditions

MIL-STD-461 E Electromagnetic interference

MIL-STD-1275 B Vehicle power requirements

Benefits

Light weight reduce overall vehicle load vs fire power

Non-complex vehicle interface with no vehicle penetration

Increased internal space for crew or load capacity

High accurate performance with simple-to-use operator interface

"On-the-move" engagement and firing capability

Rapid target designation

Can integrate with systems such as BMS and threat locating devices

Integration with situational awareness systems

Ammunition Replenishment

The turret has been integrated with a semi-automatic ammunition replenishment system

Turret accommodates two pre-prepared ammunition bins of 200 x 30mm capacity each

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