THE VINGMATE FAMILY

This is modern war fighting
THE VINGMATE FAMILY

Rheinmetall Defence Electro-Optics is the world’s foremost supplier of fire control systems for armed forces and government agencies. The Vingmate family of fire control systems (FCSs) provides users with a broad range of enhanced capabilities, increasing the effectiveness of the gunner while maximizing the potential of the host weapon system and munitions being utilized.

ROBUST CAPABILITIES

The Vingmate family of fire control systems provides users with robust capabilities and a critical edge when confronting current and future threats. These systems are easy to use, can be quickly mounted onto existing weapons, and are compatible with current and next-generation munitions. The Vingmate family of FCSs turns existing weapons into hard-hitting combat multipliers dramatically increasing effectiveness in any theatre of operation. The increased performance delivered by Rheinmetall Electro-Optics helps customers meet current requirements and bridge critical capability gaps in a cost-effective manner.

PRECISION IN THE MOMENT

The Vingmate family consists of three fire control solutions, providing increased accuracy and performance for heavy machine guns and automatic high velocity system grenade launchers (AGLs), low and medium velocity grenade launchers and shoulder-fired weapon systems:

- **Vingmate Advanced**
  The industry standard for high velocity AGLs and heavy machine guns
- **Vingmate MR**
  The most advanced fire control system for low and medium velocity 40mm grenade launchers
- **Vingmate SL**
  The next generation fire control system for shoulder-launched weapons

Capabilities provided by the Vingmate family include:

- **Precision**
  Dramatic increases in accuracy, resulting in improved first-round hit probability and reducing the risk of collateral damage
- **Airburst capable**
  Technology enables use of 40mm- and 84 mm airburst ammunitions
- **Lase, aim and fire**
  Day/night capable, these products provide gunners with easy to use interfaces and point and shoot functionality
- **Mission endurance**
  Reduced ammunition consumption per target resulting in increased mission endurance
- **Cost savings**
  Modular solutions to meet specific requirements and enhanced training opportunities
VINGMATE ADVANCED

Increasing first hit probability

Lase → Aim → Fire. With its impressive accuracy and functionality, the Vingmate Advanced is the industry standard FCS for high velocity AGLs and heavy machine guns.

FEATURES

- Direct fire for point targets and improved area target suppression
- Indirect fire capability
- Target acquisition out to 4,500 m
- Battle management system (BMS) interface
- Day/night-capable
- Ballistic compensation
- Airburst programming for 40 mm AGLs

BENEFITS

- Eliminates “walk-fire” method of engagement
- Allows engagement of out-of-sight targets
- Reduced ammo consumption
- Reduced collateral damage
- Faster identification and engagement of single and multiple targets
- Compatible with airburst ammunitions from several suppliers for engaging targets in defilade
VINGMATE SL

The ultimate fire control system for shoulder launched weapons and heavy machine guns

FEATURES

- Day/night optics
- Laser range finder
- Airburst programming
- Ballistic computer covering all ammunition types used by the weapon
- Tilt sensors (cant and target elevation)
- Temperature and barometric pressure sensors
- Focusable and invisible infrared illuminator
- Compact servomotor
- Time-of-flight calculator
- Integrated ABM programming unit

BENEFITS

- High first-round hit probability
- Exact elevation on angle
- Point and shoot simplicity with integrated laser pointers
- Holds hundreds of ballistic tables for multiple munitions and weapons
- Designed for low and medium velocity 40mm grenade launchers laser range finder undetectable by NVGs

VINGMATE MR

The highly integrated fire control unit and air-burst programmer

FEATURES

- Laser range finder
- Inclinometer – measures shooter/target elevation data
- Ballistic computer
- Temperature and barometric pressure sensors
- Focusable and invisible infrared illuminator
- Compact servomotor
- Time-of-flight calculator
- Integrated ABM programming unit

BENEFITS

- Digital interface to ammo and BMS
- Visible laser bore sighting system
- Weight: 1,500g without batteries and wireless remote control unit
- Wireless remote operation for 84mm Carl Gustav

- Increased accuracy
- Integrated rate gyro for engaging moving targets
- Airburst programmer increases the effectiveness of host weapon
- Laser range finder undetectable by NVGs
- Ease of use – simple interface and intuitive controls
- Easily incorporated onto existing weapons
AIRBURST MUNITIONS

Maximizing the potential

Rheinmetall’s Velan cartridge bridges a capability gap in its suite of 40 mm high and medium velocity ammunition for combat operations. The 40 mm HV HE and HEDP cartridges are particularly effective in combination with the newly designed infrared programmable airburst nose fuse. The FCS determines the length and actual flight time, and the grenade is programmed to explode near the target with perfect accuracy.

STANDARD FUNCTIONALITY

- High impact reliability, resulting in an unexploded round rate of less than 1%
- Interfaces easily with the Vingmate family FCS as well as other existing fire control units
- Minimum power requirements
- Complete IM compliant round
- State-of-the-art effectiveness
- Tracer and non-tracer versions
- Identical ballistic characteristics
- Co-location possible
- Cannot be jammed