

# SD-ROW

SELF DEFENCE REMOTELY OPERATED WEAPON



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DENEL VEHICLE SYSTEMS



The Self Defence Remotely Operated Weapon (SDROW) is a light-weight weapon system fitted with a Light Machine Gun (LMG) for use on a variety of soft-skinned, Armoured Personnel Carriers (APC) and Mine Protected Vehicles (MPV).

The system can be operated by one crew member from under or behind cover. The SDROW weapon system is designed for easy installation on a variation of vehicles.

The SDROW allows for vehicle protection without compromising the encapsulation of the cabin and thus mine blast protection.

Depending on the selected weapon configuration, the SDROW is effective against enemy targets over a 600 m range.

#### Intuitive Control Interface

For easy operation in a typical truck cabin, the SDROW operator manipulates the turret and fires the weapon using a simple Human Machine Interface (HMI), consisting of a unique control interface with an integrated display (similar to a game console). The HMI unit can be stowed and is portable, enabling the driver or co-driver to operate the SDROW. Real-time video received from the cameras on the weapon station is displayed to the operator overlaying information digitally. Fixed ballistic aiming lines are displayed to help the operator compensate for distance. The aiming point moves according to the selected distance. The system has a typical 10 - 600 m application distance resulting in a very low trajectory for 7.62 mm and 5.56 mm calibre ammunition.

Direct input buttons for fast left, front and right turret positioning enables the operator to rapidly acquire and engage targets without becoming disoriented.

#### System Characteristics

Height	< 600 mm
Width	< 500 mm
Sweep radius	< 650 mm (including a 7.62 mm calibre barrel)
Weight	75 kg including 200 rounds of ammunition

Stabilisation	Stabilised for use on the move
Laying accuracy	< 1 mRad

#### Operational Envelope and Performance

Traverse Standard:	$\pm 135^\circ$ , Optional n x $360^\circ$
Elevation	$-20^\circ$ to $80^\circ$
Speed Traverse	100°/s - Elevation: 80°/s

#### Weapons

SDROW can be adapted for various NATO or non-NATO LMG's.

All weapon functions such as cocking, safety and firing are remotely controlled from within the cabin of the vehicle. Various safety mechanisms are fitted.

#### Sight and Aiming System

Standard	2 FOV day camera $5^\circ$ and $22^\circ$
Optional	LRF up to a range of at least 2500 m with < 5 m accuracy
Optional	Un-cooled TIS with FOV of $9.4^\circ$ and $4.7^\circ$

Ability to detect a human up to 2000 m and recognition up to 700 m by night

Various options of thermal cameras can be offered

#### Operator Control Unit

The system is controlled by a single handheld controller/display unit

Real-time computer calculates ballistic compensation

Display type 6.5" LCD: 1 024 x 768 resolution

Start-up response time < 5 seconds to start-up

#### Vehicle Interface

Mechanical on roof	3x M10 Bolts
Inside vehicle	Flat panel mount
Electrical	24 VDC nominal 5 A with 30 A peaks

#### Qualification

Environmental qualification according to MIL-standards

#### Benefits

- Allows under-armour protected target engagement without exposing the gunner
- Greater accuracy than a ring station
- "On-the-move" engagement and observation capability
- Gunner or driver can operate the weapon without changing position
- Accurate target confirmation/identification
- Simple and fast installation and removal for transport or to change to another vehicle (typically less than 30 minutes)
- Weapon can be easily removed for personal deployment

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