VEHICLEPROTECTION

ROSY – RAPID OBSCURING SYSTEM
SURVIVE ON THE MOVE

PASSION FOR **TECHNOLOGY.**

RHEINMETALL

ROSY shields an All Terrain Vehicle with a dynamic screen

ROSY protecting the High Mobility Truck System HX77 of Rheinmetall MAN Military Vehicles

ROSY integrated into a remote controlled weapon station

ROSY® – RAPID OBSCURING SYSTEM

Rheinmetall's ROSY smoke protection system helps to protect the crew and passengers of military and civilian vehicles from surprise attacks and ambushes e.g. during reconnaissance patrols or while travelling in convoy. Unlike conventional smoke and obscurant systems, ROSY produces within one second an instantaneous, large-area, multispectral interruption of the line of sight that shields even moving vehicles with a dynamic, long-lasting smoke screen.

ROSY's multi-mission capability assures 360° protection from multiple attackers, including stream and wave attacks. Moreover, thanks to effective screening in the visual and infrared spectrums, including integrated IR jamming and decoying effects, ROSY effectively counters conventional weapons, weapons with optical devices and laser distance measurement.

MAIN FEATURES

- Smoke protection in line of sight
- Immediate and dynamic screening
- Multispectral effectiveness
- 360° protection
- Multiple use without reloading
- Minimum weight and recoil
- Automatic reaction via sensor triggering
- Anti-riot capabilities (non-lethal)
- Applicable for tanks, light military vehicles, Special Forces' vehicles, trucks and the integration into weapon stations

STATUS

- Technical readiness according to TRL 9
- Rheinmetall has booked orders from NATO and non-NATO countries for different plattforms, including e.g. ATVs, trucks, logistic and combat vehicles and tanks
- In service

ROSY_Mod – single launcher module version

The latest version of ROSY is the modular ROSY_Mod. It is designed for small weapon stations and light vehicles of the kind used by special operations forces. ROSY_Mod is integrated directly into the vehicle without a surface-mounted launcher, thus making it undetectable.

### ROSY_ISS with integrated sensor suite

ROSY is available with a highly integrated multispectral protection suite. Thus providing vehicles with an extremely effective, automated defensive aid suite. It features built-in sensors for e.g. detecting infrared, laser and electro-optical threats.

The following sensors can be integrated

- Laser warner
- Radar warner
- Thermal imager
- TV
- GPS
- Wind
- Acoustic
- Further sensors on request

ROSY_ISS system configuration

ROSY_S3 (Single Sided Screening)
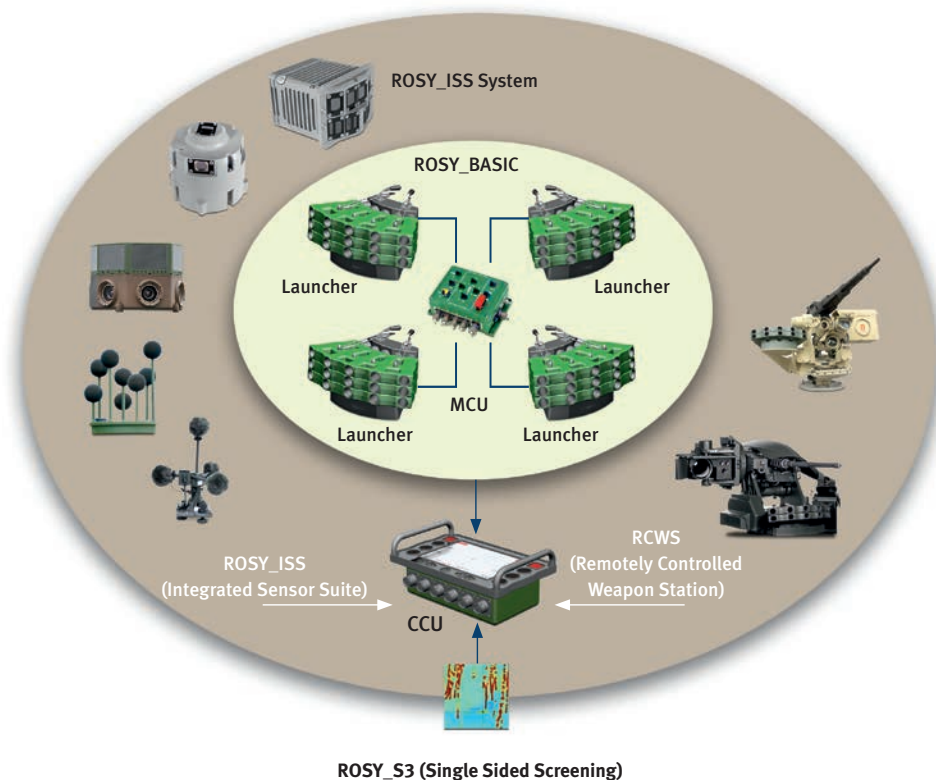
ROSY STANDARD SYSTEM CONFIGURATION

ROSY encompasses a basic system with a manual control unit and from one to four ROSY launchers per vehicle.

Launcher
- 1 to 4 launchers per vehicle
- 1 to 3 magazine rows per launcher
- Optional: One-click adapter

Manual control unit
- 1 Manual Control Unit (MCU) with integrated emergency power supply and CAN-Bus-Interface
- Optional: Computer Control Unit (CCU), interfacing towards sensors and CMS

TECHNICAL DATA	
Launcher	
Size single row (L x W x H)	565 x 441 x 165 mm
Size two rows (L x W x H)	565 x 452 x 216 mm
Size three rows (L x W x H)	565 x 463 x 266 mm
Weight (single row)	‹12 kg fully loaded
Manual Control Unit (MCU)	
Dimensions (L x W x H)	226 x 173 x 96 mm
Weight	2 kg
Safety	SIL-2 in accordance with IEC 61508

One-click adapter (optional)

To mount the system, there is no need for tools. The "one-click" adapter is particularly suitable for quick and easy "fitted-for" installations.
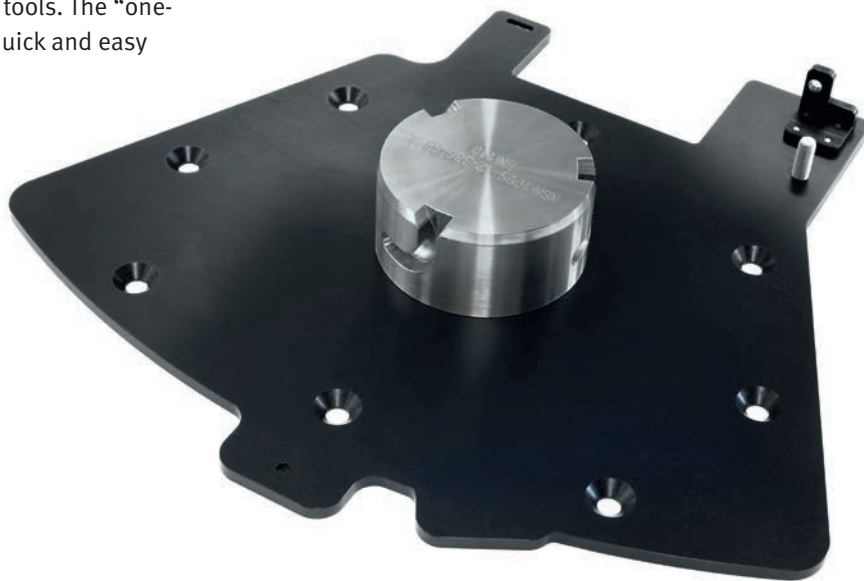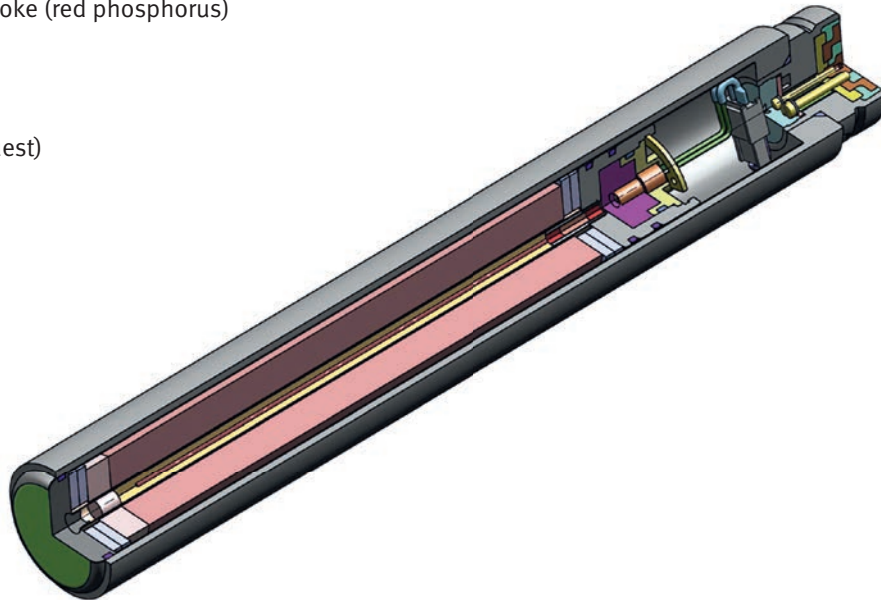
360° PROTECTION

t = 0.5 s

t = 0.9 s

t = 1.5 s

40 MM AMMUNITION

Types
- Multispectral smoke (red phosphorus)
- Teargas (CS)
- Flash-Bang
- Test modules
- Practise (on request)

TECHNICAL DATA	
Ammunition	
Calibre	40 mm
Length	280 mm
Weight	540 g
40 mm x 280 RP Smoke	
Delay time	0.5 s
Range	approx. 25 m
Payload	approx. 160 g RP
Time of effectiveness (vis)	›15 s

Applications	
Vehicle protection	Smoke RP
Riot control	CS and flash bang
Training and testing	Test modules for operational
	system training and practise in the field
Effectiveness	
IR	NIR, MWIR, LWIR
EO	400 nm – 1,000 nm
Laser	550 nm – 1,500 nm

INFRARED EFFECTIVENESS

t = 0 s

t = 0.5 s
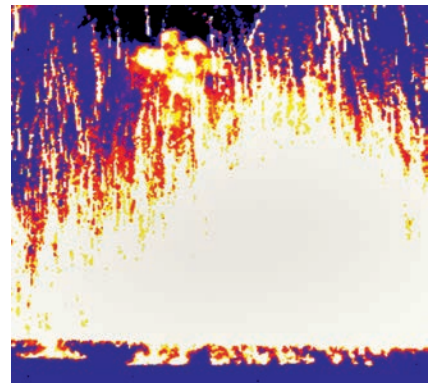
t = 1 s

Rheinmetall Waffe Munition GmbH

info-wm@rheinmetall.com
www.rheinmetall.com