



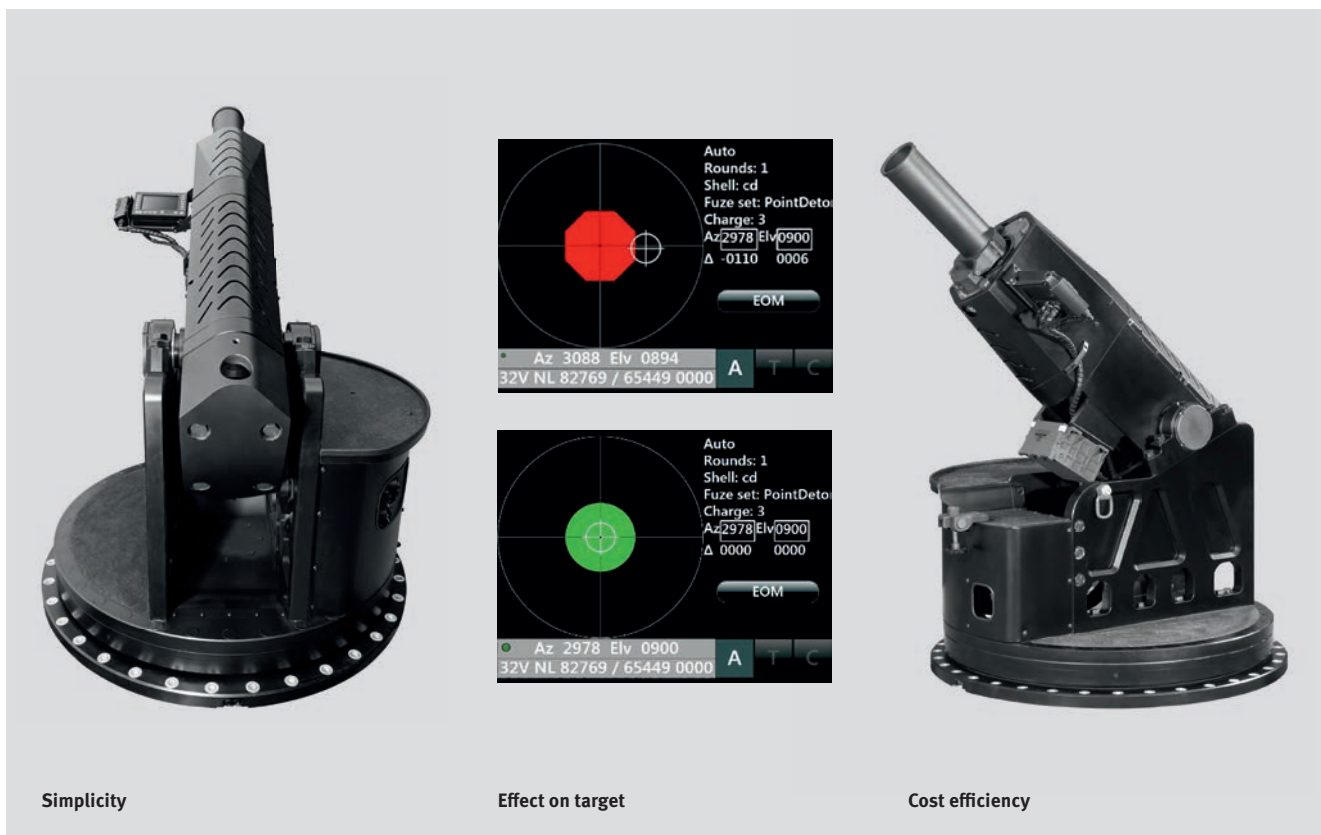
# MWS 120 **RAGNAROK**

TAKING RESPONSIBILITY IN A CHANGING WORLD



## RAGNAROK – THE ESSENTIALS

- 120 mm manual muzzle loaded mortar with a dual recoil damping system
- Electric drives for Azimuth/Elevation with fail safe mechanical brakes
- Azimuth range up to  $\pm 3200$  mils, pending available space of platform
- Aiming accuracy  $< 2$  mils
- Automatic compensation of roll/pitch of platform ( $\pm 20$  degrees)
- One push Automatic laying of weapon
- One push Automatic correction of aiming between rounds (if needed)
- Graphical Bulls Eye user interface



## RAGNAROK OPERATIONAL/TACTICAL BENEFITS

- Manual loading allows almost double rate of fire (18–20 rounds/min) compared with auto loading or turreted systems
- Manual loading yields higher availability and reduces life cycle costs
- Most 120 mm barrels (smooth and rifled) can be integrated
- Bulls Eye graphical aiming display ensures good control of accuracy (platform movements)
- Dual recoiling dampers provides minimum movement of barrel. Low dispersion of rounds.
- Ground mounted firing as back up
- Can be operated by a crew of 2 (loader and loaders assistant)

NB: the operators screen is ideally placed by commander's seat

## RAGNAROK PLATFORM INTEGRATIONS

RAGNAROK integrated and fired in/from in following platforms:



Eyder 4x4 (13t)



8x8 BOXER



All Terrain Trailer BvS10

### HIGHLY MOBILE HEAVY DUTY TRAILERISED RAGNAROK

Bespoke RAGNAROK interface module for the in-service BvS10/Beowulf All Terrain Trailer

- Weight approx. 3t
- Standard 10ft container interface
- Hydraulic support leg system
- In/out of action approx. 45 seconds
- Boogie + snow skis for ultimate terrain capacity
- On board POW/Hydraulics supply, stand alone firing capable
- Max. recoil force permitted >60 tonnes
- Max. speed 80 km/h

### RAGNAROK ON BV TRAILER

#### Operational/Tactical/Economical Benefits

- Turnkey solution
- No efforts (risks, time, money) vs integration project vehicle platform
- Full operational flexibility, platform independent
- Over snow capability
- Adds shoot/scoot mortar capability also to light units
- Helicopter transportable
- Allows for maximum ammunition storage in towing platform
- Independent of variations in recoil force



All Terrain Trailer 4x4 CARACAL (4.5t)



Mortar Mission Module



MMM integrated on ACSV G5



MMM integrated on ACSV G5

### HIGHLY FLEXIBLE MORTAR MISSION MODULE

- MWS120 integrated in a ISO 10" container main frame (Module) with fork-lift fittings, protected walls and roof with hatches
- Module can be carried by most vehicle systems with 10" ISO interfaces (trucks, armoured vehicles etc)
- Container can be armoured after STANAG levels 1/2/3
- Hydraulic rooftop hatches
- Built-in "immediate access" to mortar rounds
- Storage capacity ~48x 120 mm rounds
- Ammunition propellant fumes evacuation system
- Transportability
- Deployability
- Ballistic protection
- Robust
- Barrel independent
- Weapon system is fully qualified to NATO standard
- Centralized C2
- Firepower and -efficiency
- Fully operational Module can be filled up with ammo when tasked
- Under normal circumstances, installation of the module takes a maximum of 20 minutes



MMM open



MMM integrated on HX 8x8

**Rheinmetall Nordic AS**

Steinklossveien 14  
3133 Duken, Norway  
mail@rheinmetall.no  
www.rheinmetall.no