GENERAL DYNAMICS
European Land Systems

Artillery

Advanced Artillery System

SIAC155/52

Advanced artillery system

The SIAC is a state-of-the-art 155/52 caliber towed howitzer with self-propelled capabilities due to its integrated auxiliary power unit.

The SIAC's advanced design meets the most demanding requirements of modern field artillery and coastal defence missions, featuring rapid deployability, excellent first round hit porbability and a swift “shoot and scoot” capability for higher survivability.

GDELS' Automatic Gun Laying System (AGLS), Digital Navigation Aiming and Pointing System (DINAPS) and Fully Automatic Ramming System (FIRS) are integrated in the SIAC for superior performance in the battlefield.

GDELS offers a worldwide and well proven Integrated Logistics Package for the SIAC howitzer.

The 155/52 SIAC Howitzer is one of the world's most technologically advanced Artillery Systems, capable of delivering ordnance on target from the first round fired

SIAC main features

- 155/52 towed howitzer with self propelled capability
- NATO joint ballistic MoU compatible
- Compatible with all existing projectiles - propelling charges
- Firing range over 40 km (with Base Bleed ammunition)
- Quick entering in position and moving away in autonomous mode (entering: 2 min. / moving away: 1,5 min.)
- 10 rounds in the first minute
- AGLS (Automatic Gun Laying System)
- DINAPS (Digital Navigation Aiming and Pointing System)
- FIRS (Fully Integrated Ramming System)

PHYSICAL FEATURES	SIAC
Mass	13,500 Kg
Overall Dimensions	
Length in travel position	10.35 m
Width	2,082 m
Height	2.20 m
Ground Clearance	0.3 m

FUNCTIONAL FEATURES / PERFORMANCES	SIAC
Operation time	
Entering in position time	2 minutes
Moving away time	90 seconds
Navigation, command & control, communications	
Navigation system	Inertial + GPS
Ballistic computer	Yes
Muzzle velocity radar	Yes
Chamber temperature	Yes. SW control
Recoil meter	Yes. SW control
EFC round counter	Yes. SW control
C2 linkable	Yes
Radio Communications	Yes
Towing vehicle integration	Mechanic, pneumatic, electric, Command & Control, Navigation, Communications
On board software. Other capabilities	
Maintenance module	Yes
Training module	Yes
Projectile Loading System	Hydraulic
Orientation System	Mechanic-hydraulic
Elevation System	Hydraulic Auto-balanced
Gun Laying System	Automatic

Quick deployability
Extreme accuracy
Superior fire rate & power
Exceeding tactical and strategic mobility

WEAPON SYSTEM

- Barrel: Single block autofrettaged
- Caliber: 155 mm
- Tube length: 52 calibers
- Grooving: 60 grooves dextrorsum
- Turn grooving: 1 turn in 20 calibers
- Chamber volume: 23l
- Breech type: Screw
- Obturation: Bange
- Breech action: Automatic (VB: manual)
- Primer loading: Automatic Primer Magazine (10 primers)
- Muzzle brake: Closed, 3 stages
- Brake: Recoil and counter recoil, hydraulic rod with absorber
- Counter recoil mechanism: Oleo-pneumatic

AUTONOMOUS MOBILITY

- Maximum road speed: 18 km/h
- Maximum sand-track speed: 12 km/h
- Maximum off-road speed: 8 km/h
- Maximum slope: 30%
- Fording capacity: 0.7 m
- Turning radius: 23 m

TOWING VEHICLE INTEGRATION

- Command and Control Unit connection
- Navigation
- Howitzer systems control
- Communications
- Can be towed by any 10 ton class vehicle

NAVIGATION SYSTEM

Hybrid (Inertial + GPS)
Navigation System with:

- Ring laser gyro
- Accelerometers
- GPS
- Kalman's Filter algorithms

FIRING CAPABILITY

- Ballistic computer providing fast firing data calculation
- Ammunition: All NATO compatible ammo and others
- Range (standard projectile): 30 km
- Range (BB attended projectile): 40 km
- Special ammunition: up to 60 km
- Burst rate:
  10 rounds in the first minute
  3 rounds in the first 11 seconds
  4 rounds in the first 20 seconds
- Sustained fire rate: 2 rpm

MRSI analysis and programming (up to 4 rounds)

HIGHER SURVIVABILITY

- Entering in position timing: 2 minutes
- "Shoot and scoot" capability
  Moving away timing: 1.5 minutes

COMMAND AND CONTROL COMMUNICATIONS

- Ballistic computer
- Muzzle velocity radar
- Chamber temperature sensor, recoil meter sensor and EFC round counter SW controlled
- Integration with in-service C2 / C4 ISR
- Radio communications

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Defense Solutions for the Future

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