

WHEELED VEHICLES

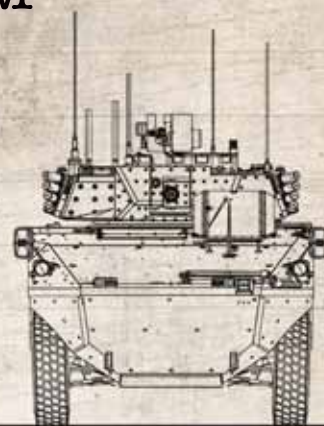
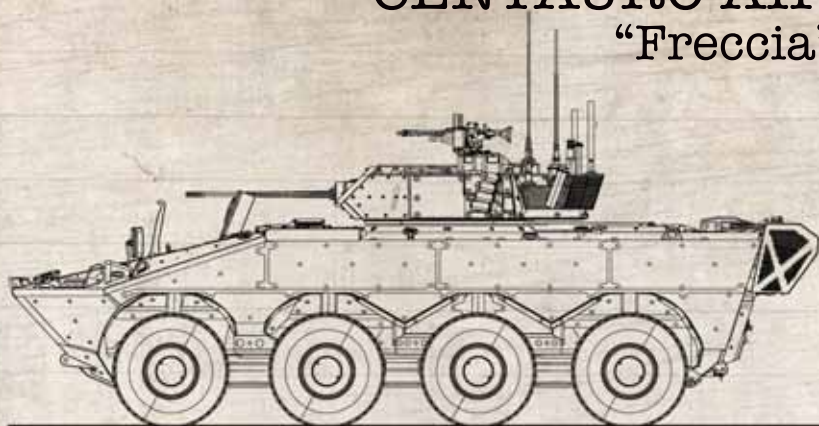
CENTAURO AIFV/ATGM “Freccia”



The Centauro Armoured Infantry Fighting Vehicle “Freccia” is an 8X8 wheeled armored vehicle which combines the proven and highly reliable drive train of the Centauro Family with a hull especially designed to ensure maximum crew survivability. The inner volume of about 11m³, can accommodate a driver, a two man turret and 8 fully equipped dismounts. Hydraulically operated, the low angle rear ramp allows particular ease of access and dismount capability with special consideration given to troops laden with heavy kit. The Centauro AIFV “Freccia” design is focused on providing the infantry with the firepower and protection they need to undertake their mission effectively, be it in war or peacekeeping. To this end, it is equipped with a two-man HITFIST™ Plus turret mounting a 25 mm or 30 mm cannon as well as the associated fire control system and a range of sighting systems. A coaxial 7.62 mm MG is standard. A mount for an external 5.56/7.62 mm MG is available if required. In the Anti Tank configuration the turret can be fitted with two Anti-Tank Guided Missile system. Two missiles are ready to fire in external launchers and 8 missiles are stowed in the hull.

The adoption of the innovative “H shaped” transmission with twin side mounted drive shafts in place of the more traditional single central shaft, provides the vehicle with a low silhouette and an inherently more stealthy profile than others in its class. As with all the vehicles belonging to the Centauro family, the Centauro AIFV has outstanding tactical mobility, based on its powerful Iveco engine driving an automatic gearbox and enhanced by 3-axle steering. Independent hydropneumatic MacPherson suspension on each wheel provides exceptional ride quality, also derived from long suspension travel. The vehicle is equipped with full command, control and communication system and is the core platform of the netcentric scenario.

CENTAURO AIFV/ATGM "Freccia"



Dimensions

Length	8.56 m
Height (hull)	2.04 m
(with turret)	3.18 m
Overall Width	2.99 m
Ground clearance	0.41 m
Wheelbase	2.50 m
Approach angle	40°
Departure angle	40°
Seats	1 + 2 + 8

Weight / Volume / Payload

Empty weight	22.0 t
Payload	8.0 t
GVW (Maximum)	30.0 t
Internal volume	11 m ³

Performance

Max. speed (paved road)	110 km/h
Gradient	> 60%
Side slope	> 30%
Range on road (70 km/h)	> 800 km
Step	≥ 0.6 m
Trench	≥ 2 m
Fording depth (without preparation)	1.5 m
Turning circle radius (curb to curb)	< 9.0 m
Power to weight ratio (in combat order)	21 HP/t

Mobility

Engine	IVECO 8262 6V turbocharged after cooler
Fuel	Diesel fuel/JP8
Power	405 kW (550HP)
Torque	2000 Nm (202 kgm)
Gearbox	Automatic type
Number of gears	5 + 2 r.

Driveline / Suspension

Single-differential twin-shaft design
(H-shaped driveline)
Hydro-pneumatic and independent suspension
Steering on 1st - 2nd and 4th axle
All - disk "Full - Power" braking system

Wheels

14.00R20 XZL/XML
Run-flat VFI system
Central Tyre Inflation System (CTIS)

Survivability

Low vehicle profile
High hardness monocoque steel hull
Direct fire ballistic armour (base level)
AT mines protection (base level)
Anti-mine seats
Laser warning system

Options

Hydraulic Winch
NBC protection
(collective with individual backup)
Fire Extinguishing/Anti-explosion system
in Crew cabin
Auxiliary heaters
Anti-explosion/self-sealing fuel tanks
Direct fire ballistic armour (advanced level)
AT mines protection (advanced level)
Specific IED protection suite

Driver sights

n° 3 episcopes in front of the hatch
night vision goggles

Turret

Crew

2 men (commander and gunner)

Armament

Main n° 1 KBA OERLIKON 25 mm
or n° 1 ATK MK 44 30 mm
Coaxial n° 1 MG 7.62 mm
n° 2 ATGM Launchers (option)
External Anti-Aircraft n° 1 MG 7.62/5.56 mm
Grenade launchers n° 8 GALIX x 80 mm

Ammunition

Main gun
n° 200 rounds (minimum) ready to fire
(n° 120 HE + n° 80 APDS or vice-versa)
Coaxial gun
n° 600 rounds ready to fire
External Anti-Aircraft
n° 200 rounds (minimum) 7.62 mm ready to fire
Grenades
n° 8 grenades ready to fire
n° 8 grenades stored in the turret

Electrical servo systems

Azimuth continuous n x 360°
Elevation -10° +60°
Maximum speed (elevation) 0.5 rad/sec
Minimum speed (elevation) 0.5 mrad/sec
Maximum acceleration (elevation) 1 rad/sec²
Maximum speed (azimuth) 1 rad/sec
Minimum speed (azimuth) 0.5 mrad/sec
Maximum acceleration (azimuth) 1 rad/sec²

Gunner sights

n° 1 frontal episcopes
Day/night sight and LRF with visualization
of the images on a TFT display

Commander sights

n° 8 episcopes around the hatch
TFT display for the visualization of the images
coming from the day/night gunner sight.
Day/night panoramic sight and LRF with
visualization of the images on a TFT display.