

CIO Iveco - Oto Melara

**ARMOURED
VEHICLES**





CONTENTS



- 4** - COMPANY PROFILE
- 5** - PRODUCT RANGE
 - 6** - CENTAURO MGS
 - 8** - CENTAURO AIFV "Freccia"
 - 10** - CENTAURO APC
 - 12** - CENTAURO ACP
 - 14** - CENTAURO MC
 - 16** - CENTAURO ARV
 - 18** - PUMA LAV 4X4 / 6X6
 - 20** - ARIETE MBT
 - 22** - DARDO FAMILY



Iveco - Oto Melara

Company Profile

The **Consortium Iveco - Oto Melara** was established in **1985**, on equal 50/50 participation, to design, develop and manufacture the **new generation** of MBTs and AFVs. Within the Consortium, **Oto Melara** has full responsibility for **tracked vehicles** and **Iveco** for the **wheeled** ones. In all vehicles, Oto Melara designs and produces the **weapon systems** while Iveco designs and produces the hull and all the automotive components. Both companies have **excellent skills** in the field of **protection** against direct fire mines and IEDs.

Iveco Defence Vehicles has established an outstanding reputation for the practical application of **innovative** automotive and protection solutions. The result is a **full range** of armoured vehicles and **tactical multirole trucks** which together enable the military user to meet the most exacting of operational demands.

Oto Melara, a company of the Finmeccanica group, is **world leader** in the design and production of small and medium calibre naval guns, with **research and development** capabilities ranging from gun mounts to conventional and intelligent ammunition, from artillery to turrets, from missile launchers to airborne armament.

Oto Melara can supply the Armed Forces with **advanced** and **reliable** weapon systems granting a **continuous assistance worldwide** and a support service throughout the operational life of its products.

IVECO
DEFENCE VEHICLES

 **OTO MELARA**
A Finmeccanica Company

MAIN FACILITIES



CIO - PRODUCT RANGE

A full range of armoured fighting vehicles, fulfilling the operational requirements of the 21st century.

Wheeled Vehicles

The **Centauro** Family



Centauro MGS 120mm / 105mm



Centauro AIFV "Freccia"



Centauro APC
Personnel Carrier



Centauro ACP
Command Post



Centauro ARV
Recovery

The **Puma** Family



Puma LAV 4x4



Puma LAV 6x6

Tracked Vehicles



Ariete MBT



Dardo Family



PzH 2000



High level protections



Turret HITFIST® by Oto Melara

WHEELED VEHICLES

CENTAURO MGS

120mm / 105mm



The CENTAURO MGS is an 8X8 Wheeled Main Gun System, is a new concept of weapon system, a real tank on the wheels, having the same sighting capability and the fire power of a last generation Main Battle tank. The CENTAURO will reach a max speed of 110 km/h on main roads, and meets all NATO mobility standard specifications for obstacles, trench breaching and slope tests etc.

The vehicle is fitted with run flat tyres allowing the CENTAURO MGS to operate in the most extreme terrain. Low ground pressure allows the vehicle to manoeuvre over rocks, sand, marsh and soft grounds.

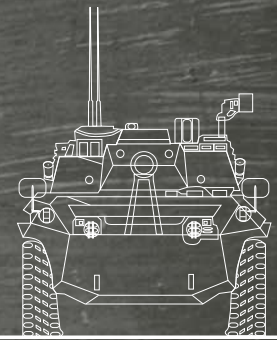
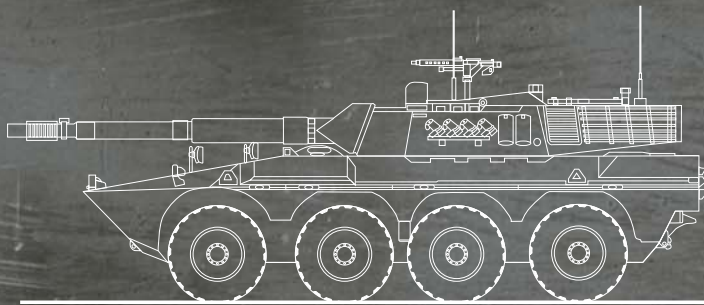
All of the CENTAURO's MGS features have been extensively tested in extreme environmental conditions including hot, dry deserts, cold and icy Nordic countries and a rain forest environment.

The vehicle hull is made of ballistic steel which gives high protection against small calibres cannons, artillery and mortar shell splinters.

The CENTAURO can be fitted with add-on armour plates without any significant loss of mobility. The HITFACT® turret accommodates a crew of three men: loader, gunner and commander.

The turret can be fitted with 105mm and 120mm main weapons which can fire all existing standard NATO kinetic or chemical energy ammunition rounds.

CENTAURO MGS 120mm / 105mm



Dimensions (approx.) 120mm (105mm)

| | |
|-------------------------------|---------------|
| Length with or without barrel | 8.48/7.63 m |
| Height (hull) | 1.75 m |
| (with turret) | 2.83 (2.73) m |
| Overall Width | |
| with or without fender | 3.05 / 2.90 m |
| Ground clearance | 0.42 m |
| Wheelbase | 2.50 m |
| Approach angle | 40° |
| Departure angle | 40° |
| Seats | 1 + 3 |

Weight / Payload / Volume (approx.)

| | |
|-----------------|-------------------|
| GVW (Maximum) | 27.0 t |
| Payload | 8.0 t |
| Internal volume | 10 m ³ |

Performance

| | |
|-------------------------|----------|
| Max. speed (paved road) | 110 km/h |
| Gradient | > 60% |
| Side slope | > 30% |
| Range on road (70 km/h) | 650 km |
| Step | 0.5 m |
| Trench | > 1.2 m |
| Fording depth | |
| (without preparation) | > 1.2 m |
| Turning circle radius | |
| (curb to curb) | < 9.0 m |
| Power to weight ratio | |
| (in combat order) | 20 HP/t |

Mobility

| | |
|-----------------|------------------------------|
| Engine | IVECO 8262 |
| | 6V turbocharged after cooler |
| Fuel | Diesel fuel / JP8 |
| Power | 382 kW (520HP) |
| Torque | 1870 Nm (190 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 braking system

Wheels

14.00R20 Different solutions
Run-flat VFI system
Central Tyre Inflation System (CTIS)

Survivability

Low vehicle profile
High hardness monocoque steel hull
Direct fire ballistic armour (base level)
Anti-personnel mines protection (base level)
Laser warning system (as option in turret)

Options

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

Turret

Crew

3 men (commander, gunner and loader)

Armament

| | |
|----------------------------|------------------|
| Main armament | 120/45 (105/52) |
| Auxiliary armament | |
| Coaxial machine gun | 1x7.62mm |
| ToT machine gun Sapphire | 1x7.62mm |
| AA pintle mounted (option) | 1x12.7mm |
| Smoke grenade launchers | 8x76 dischargers |

Ammunition

All standard NATO kinetic and chemical
Ammunition stowage
120 or 105 mm 9 rds (up to 14 rds)
ToT Mg 450 rds
Coaxial Mg 700 rds
Smoke grenade 16 rds

Electrical servo systems

| | |
|---|--|
| Training arc | unlimited |
| Elevation arc | -6° / +16° |
| Training speed / acceleration (max) | 0.5 rad/sec (0.75 rad/sec ²) |
| Elevation speed / acceleration (max) | 0.5 rad/sec (1 rad/sec ²) |



CENTAURO AIFV “Freccia”

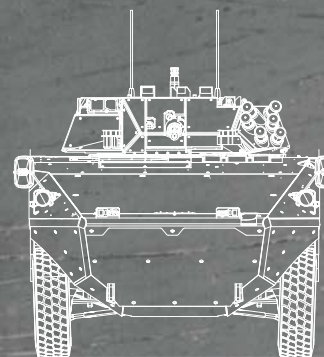
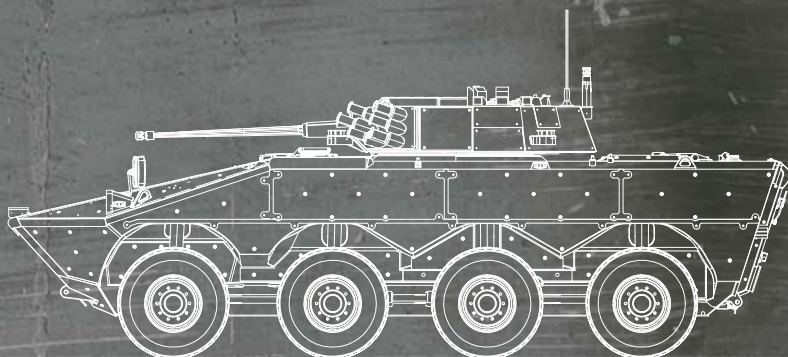


The Centauro Armoured Infantry Fighting Vehicle “Freccia” is an 8X8 armoured wheeled vehicle which combines the proven and highly reliable drive train of the Centauro Family with a hull especially designed to ensure the maximum crew survivability. With an inner volume of about 11m³, the AIFV can accommodate a driver, a two man turret crew and 8 fully equipped dismounts.

An hydraulic rear ramp allows quick access and egress. The Centauro AIFV “Freccia” is focused on providing the infantry with the firepower and protection which they need to undertake their mission effectively, be it war fighting or peacekeeping. To this end, it is equipped with a two-men Oto Melara HITFIST™ Plus turret mounting a 25mm or 30mm cannon, as well as the associated fire control system and a range of sighting systems. A coaxial 7.62mm MG is standard, while a mount for an external 5.56/7.62mm MG is available if so required. The adoption of an 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 of the Centauro family, the Centauro AIFV has outstanding tactical mobility, deriving from its powerful Iveco engine driving a ZF automatic gearbox, and enhanced by the 3-axes steering. Independent MacPherson suspensions on each wheel provide an exceptional ride quality, complemented by long excursion. The vehicle is equipped with command, control and communication systems and is the core platform of the netcentric scenario.

CENTAURO AIFV "Freccia"



Dimensions (approx.)

| | |
|------------------|-----------|
| Length | 7.99 m |
| Height (hull) | 2.01 m |
| (with turret) | 2.67 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 (approx.)

| | |
|-----------------|-------------------|
| 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 Extinguisher/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 25mm
or n° 1 ATK MK 44 30mm
Coaxial n°1 MG 7.62 mm
n° 2 ATGM Launchers (option)
External Anti-Aircraft n° 1 MG 7.62 mm
Grenade launchers n° 8 x GALIX 13
or n° 8 x WEGMANN 76mm

Ammunition

Main gun
n° 200 rounds (minimum) ready to fire
(n° 135 HE + n° 85 APDS or vice-versa)
Coaxial gun
n° 700 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 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.
Commander day/night panoramic sight with visualization of the images on a TFT display.



CENTAURO APC

Personnel Carrier



The Centauro Armoured Personnel Carrier is an 8X8 armoured wheeled vehicle which is designed to provide the infantry with outstanding capacity, mobility and protection.

Fully exploiting the benefit of its innovative driveline design, with twin side mounted drive shafts in place of the more traditional single central shaft, the Centauro APC hull offers 13.5m³ of inner volume and more than 10 tonnes payload, easily accommodating 13 fully equipped personnel including the driver.

Access and egress is facilitated by the use of a hydraulic ramp.

The vehicle's impressive mobility comes from the powerful Iveco engine driving a ZF automatic gearbox and from independent MacPherson suspension with long excursion hydro-pneumatic units.

A high manoeuvrability is granted by 3-axles steering and powerful disk brakes.

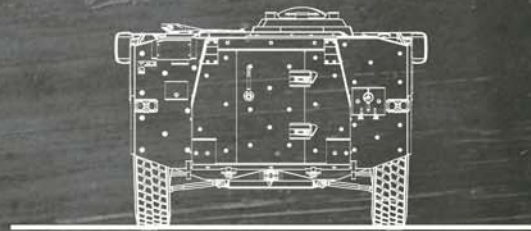
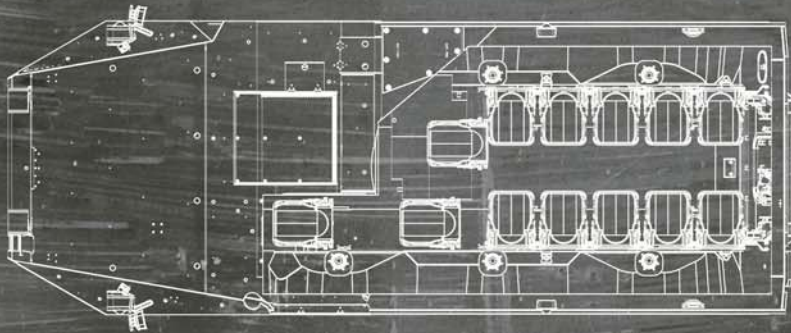
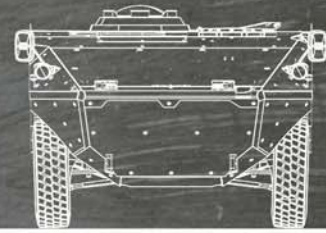
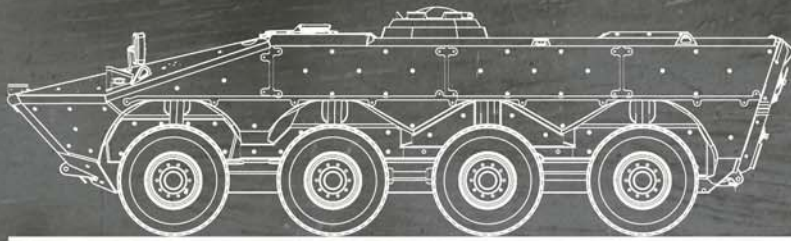
The Centauro APC is based on a high hardness monocoque steel hull which can be implemented by specific add-on protection suites against direct fire, land mines and IEDs, thus realising different levels of protection to meet any customer requirements.

For self defence, a pintle mount for an external 5.56/7.62/12.7mm MG is provided.

(As option the HITROLE™ overhead weapon station 12.7mm can be fitted)

The vehicle is equipped with two batteries of smoke grenades launchers which can either be initiated manually or cued via a laser warning receiver.

CENTAURO APC



Dimensions (approx.)

| | |
|------------------|--------|
| Length | 7.99 m |
| Height (hull) | 2.01 m |
| (with cupola) | 2.25 m |
| Overall Width | 2.99 m |
| Ground clearance | 0.41 m |
| Wheelbase | 2.50 m |
| Approach angle | 40° |
| Departure angle | 40° |
| Seats | 1 + 12 |

Weight / Volume / Payload (approx.)

| | |
|-----------------|---------------------|
| Empty weight | 19.5 t |
| Payload | 10.5 t |
| GVW (Maximum) | 30.0 t |
| Internal volume | 13.5 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) | 24 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

Options

Hydraulic Winch
NBC protection (collective with individual backup)
Fire Extinguisher/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
Laser warning system
Smoke Grenade 8x80mm launchers

Armament

General configuration of HITROLE® turret:
- Turret with main gun 12,7 mm (or, in alternative, 7,62mm / AGL 40mm) and sight system
- Console
- Logical Control Unit

The sight system is composed of:

- Day Sensors
- Night Sensors
- Laser Range Finder

Technical data

Weight 218 Kg
(with main gun 12,7mm and without ammunition and electrical units)

Rate of fire 500 rds/min

Ready to fire ammunition 130 rounds
(reloaded from inside)

Electrical data

Azimuth continuous nx360°
Elevation (with 12.7mm and 7.62mm) -10° ÷ +50°
Elevation (with AGL 40mm) - 10° ÷ +40°
Maximum speed (azimuth) ≥ 50°/sec
Maximum speed (elevation) ≥ 50°/sec
2 axis gun stabilization ≥ 1 rad/sec
Power voltage 24VDC (MIL- STD- 1275B)



CENTAURO ACP

Command Post



The Centauro ACP is an 8X8 Wheeled Armoured Command Post vehicle based on the combination between well-proven and highly reliable drive train of the Centauro Family and an especially designed hull.

The huge internal volume of 13.5 m³ can be arranged according to different customers' requirements, to host a complete set of situation awareness and communication components and to realize a fully network enabled capability. The Centauro ACP has outstanding tactical mobility, resulting from the powerful Iveco engine driving a ZF automatic gearbox and the 3-axles steering.

Independent MacPherson suspensions and long excursion hydro-pneumatic units complemented by powerful disk brakes on each wheel station, provide an exceptional ride quality.

The adoption of an 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. Rapid dismounting is facilitated by the use of a hydraulic rear ramp. The vehicle is equipped with an on board APU, capable of powering mission equipment when engine is off.

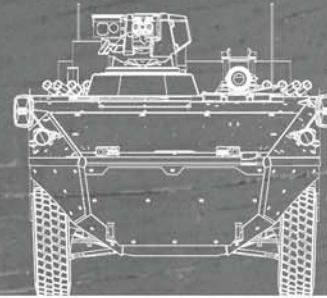
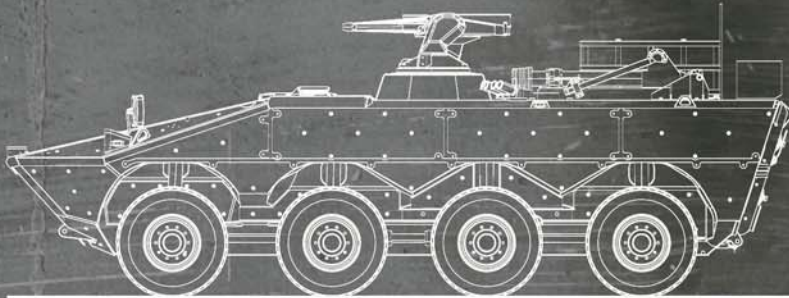
Self defence is granted by a Oto Melara HITROLE™ 12.7mm. Remotely Controlled Overhead Weapon Station. As standard, the vehicle is also fitted with two batteries of Galix smoke grenade launchers. If required, these can be activated automatically by a Laser Warning System.

The monocoque steel hull can be implemented by specific add-on protection suites against direct fire, land mines and IEDs, thus realising different levels of protection to meet any customer requirements.

A dedicated set of command, control and communication systems is the backbone of the CP vehicle.

VHF 635/V, CNR 2000 with couplifier 125W with a bond radio HCDR and UHF SRT-651/N are the standard radio equipment of the Italian version. Computers, printers and auxiliary power units enable the vehicle to control the other platforms on the scenario.

CENTAURO ACP



Dimensions (approx.)

| | |
|----------------------|-----------------|
| Length | 7.99 m |
| Height (with turret) | 2.90 m |
| Overall Width | 2.99 m |
| Ground clearance | 0.41 m |
| Wheelbase | 2.50 m |
| Approach angle | 40° |
| Departure angle | 40° |
| Seats | 1 + 2 + up to 6 |

Weight / Volume / Payload (approx.)

| | |
|-----------------|---------------------|
| Empty weight | 21.5 t |
| Payload | 8.5 t |
| GVW (Maximum) | 30.0 t |
| Internal volume | 13,5 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) | 24 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
Smoke Grenade 8x80mm launchers

Mission Equipment

HF / VHF / UHF radios
Intercom (local/ remote)
Microwave link with telescopic mast
Situation awareness / BMS workstations
Autonomous Power Unit

Options

NBC protection
(collective with individual backup)
Fire Extinguisher/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 LED protection suite
Retractable tent

Armament

General configuration of HITROLE® turret:
- Turret with main gun 12,7 mm
(or, in alternative, 7,62mm / AGL 40mm)
and sight system
- Console
- Logical Control Unit

The sight system is composed of:

- Day Sensors
- Night Sensors
- Laser Range Finder

Technical data

Weight 218 Kg
(with main gun 12,7mm and without ammunition and electrical units)

Rate of fire 500 rds/min

Ready to fire ammunition 130 rounds
(reloaded from inside)

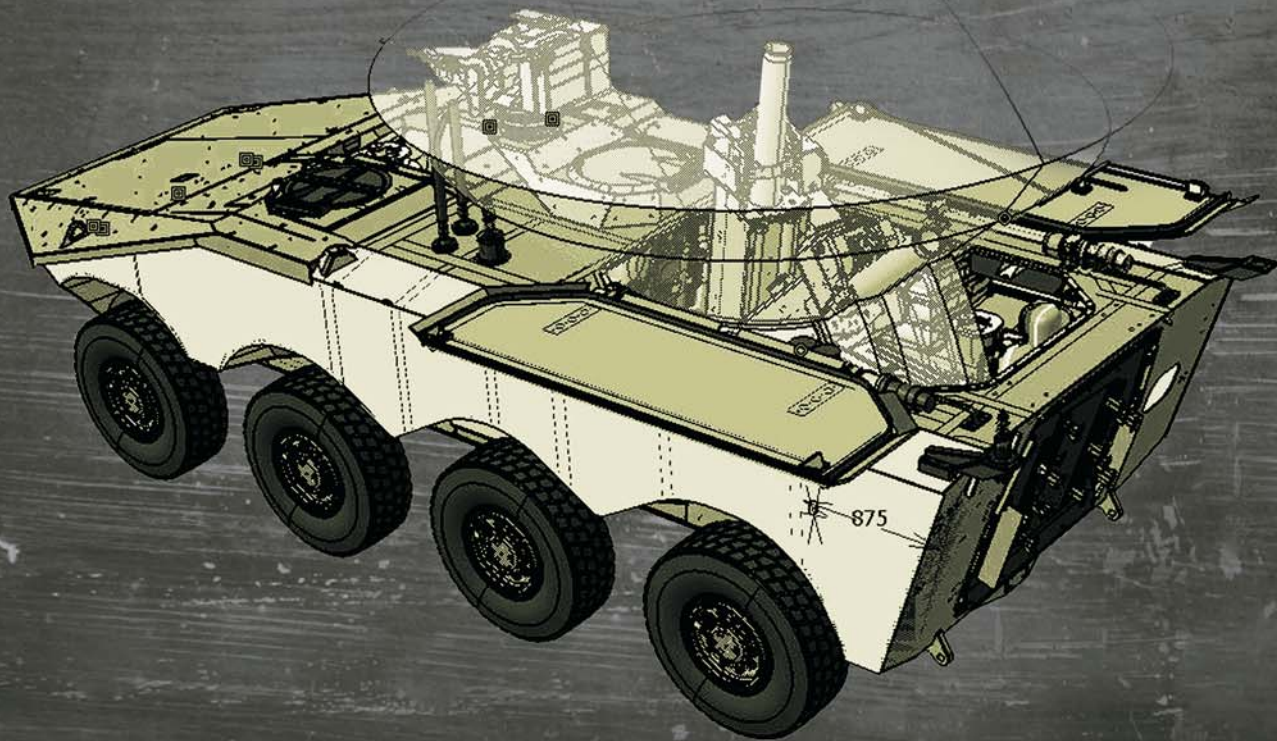
Electrical data

Azimuth continuous nx360°
Elevation (with 12.7mm and 7.62mm) -10° ÷ +50°
Elevation (with AGL 40mm) - 10° ÷ +40°
Maximum speed (azimuth) ≥ 50°/sec
Maximum speed (elevation) ≥ 50°/sec
2 axis gun stabilization ≥ 1 rad/sec
Power voltage 24VDC (MIL- STD- 1275B)



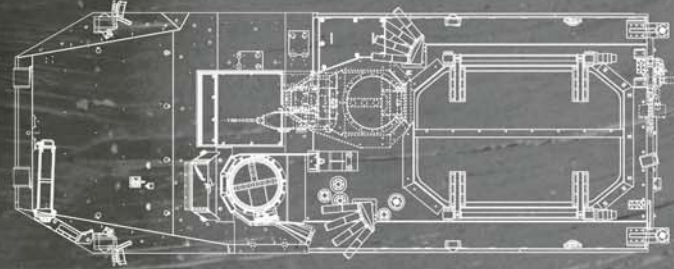
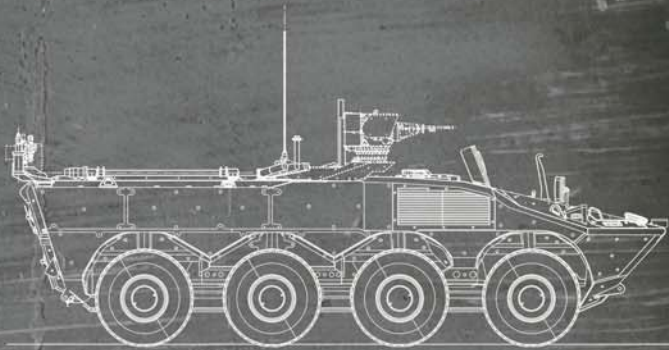
CENTAURO MC

Mortar Carrier



The Centauro Mortar Carrier shares the mobility and versatility typical of the Centauro family. The vehicle can carry a 120mm semi-automatic mortar rifled bore. The weapon system can rotate and shoot 360° the same ammunitions used by the infantry unit. Additionally a small calibre turret remotely or manually controlled allows the vehicle self defence

CENTAURO MC



Dimensions (approx.)

| | |
|----------------------|-----------------|
| Length | 7.99 m |
| Height (with turret) | 2.90 m |
| Overall Width | 2.99 m |
| Ground clearance | 0.41 m |
| Wheelbase | 2.50 m |
| Approach angle | 40° |
| Departure angle | 40° |
| Seats | 1 + 2 + up to 2 |

Weight / Volume / Payload (approx.)

| | |
|-----------------|---------------------|
| Empty weight | 21.5 t |
| Payload | 8.5 t |
| GVW (Maximum) | 30.0 t |
| Internal volume | 13,5 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 |

Mobility

| | |
|-----------------|--|
| Engine | IVECO 8262 6V turbocharged after cooler |
| Fuel | Diesel fuel / JP8 |
| Power | 405 kW (550HP) |
| Torque | 2100 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
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
Smoke Grenade 8x80mm launchers

Mission Equipment

HF / VHF / UHF radios
Intercom (local/ remote)
Situation awareness / BMS workstations

Options

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

Armament

General configuration of SAPPHIRE[®] turret:
- Turret with main gun 5,56 mm (or, in alternative, 7,62mm / AGL 40mm) and sight system
- Console
- Logical Control Unit

The sight system is composed of:

- Day Sensors
- Night Sensors
- Laser Range Finder

Or with a protected motorized Manual Turret with manual MG (7.62 or 5.56 mm); equipped with 5 episcopes around the hatch

Technical data

| | |
|--------------------------|-------------|
| Weight | 160 Kg |
| Rate of fire | 500 rds/min |
| Ready to fire ammunition | 200 rounds |

Electrical data

| | |
|------------------------------------|-------------------------|
| Azimuth | continuous nx360° |
| Elevation (with 12.7mm and 7.62mm) | -10° ÷ +80° |
| Elevation (with AGL 40mm) | - 10° ÷ +40° |
| Maximum speed (azimuth) | ≥ 1 rad/sec |
| Maximum speed (elevation) | ≥ 1 rad/sec |
| 2 axis gun stabilization | ≥ 1 rad/sec |
| Power voltage | 24VDC (MIL- STD- 1275B) |

Mortar

TDA type, 2R2M semiautomatic model 120mm caliber

shoots stored in the vehicle n°max 40
shooting azimuth +/- 200°
shooting elevation 45° ÷ 85°
electrically activated trough an hydraulically power unit



CENTAURO ARV

Recovery Vehicle



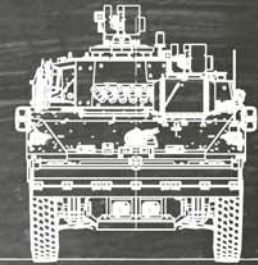
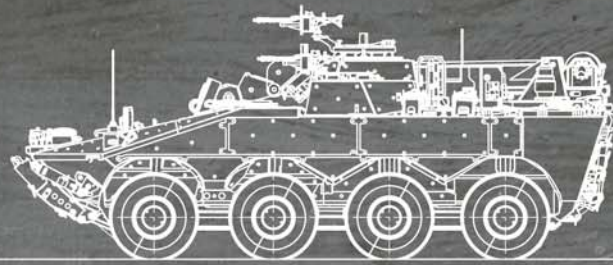
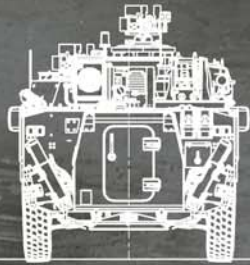
The Centauro Armoured Recovery Vehicle (8x8) combines the battle proven and highly reliable drive train of the Centauro family with identical technology and the greater part of its components.

The Centauro ARV is specifically designed to provide the crew (1+2) with the capability of field repairs and the recovery of another vehicle of the same class. Highly protected against ballistics, mines and IED's. This vehicle has two 7.62mm MGs (one fitted on a RWS and the other pintle mounted) and eight additional grenade launchers. This vehicle is also equipped with a nine ton crane and has the capacity to carry a complete power pack for a vehicle of the Centauro family allowing engine replacements in the field.

During these operations the crew may depend on the hydraulic outrigger stabilizers. However when recovering a same class vehicle the task is performed by a complete towing set and a twenty ton winch. The hydraulic front blade allows ground leveling, barricade arrangements and auto-uplifting.

On this vehicle there are also points for quick electrical and pneumatic connections.

CENTAURO ARV



Dimensions (approx.)

| | |
|----------------------|--------|
| Length | 8,25 m |
| Height (hull) | 2,04 m |
| (with manual turret) | 2,75 m |
| Overall Width | 2,99 m |
| Ground clearance | 0,41 m |
| Wheelbase | 2,50 m |
| Approach angle | 30° |
| Departure angle | 35° |
| Seats | 1 + 3 |

Weight / Volume / Payload (approx.)

| | |
|-----------------------|------------------|
| Empty weight | 23,0 t |
| Payload | 7,0 t |
| GVW (Maximum) | 30,0 t |
| Internal volume | |
| 2 rooms (crew volume) | 7 m ³ |
| (technical volume) | 6 m ³ |

Performance

| | |
|-------------------------|----------|
| Max. speed (paved road) | 110 km/h |
| Fording depth | |
| (without preparation) | 1,5 m |
| Turning circle radius | |
| (curb to curb) | <9,0 m |

Mobility

| | |
|-----------------|------------------------------|
| Engine | IVECO 8262 |
| | 6V turbocharged after cooler |
| Fuel | Diesel fuel / JP8 |
| Power | 405 kW (550HP) |
| Torque | 2100 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 different design
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
Smoke Grenade 8x80mm launchers

Mission Equipment

Main Hydraulic Winch 100 m long
Auxiliary winch
Hydraulically crane
APU 5 kW (DC and AC output)
NBC protection
(collective with individual backup)
Fire Extinguishing/Anti-explosion system
in Crew cabin
Auxiliary heater
Anti-explosion / fuel tanks
Direct fire ballistic armour (advanced level)
AT mines protection (advanced level)
Specific IED protection suite

Rear ramp

Frontal blade for barricades, ground leveling, lifting up the vehicle

Stabilizers 2 rear located

Points for quick electrical, hidraulical and pneumatical connections

Tanks for liquid reserves

Sets of auxiliary tools

In emergency possible to transport an auxiliary powerpack or 1m³ of water

Armament

External n° 2 MG 7.62mm
or 5.56mm one
through a cupola, the 2nd on a rail

Grenade launchers n° 8 for 80mm

Gunner sights

Episcopes around the hatch

Driver sights

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

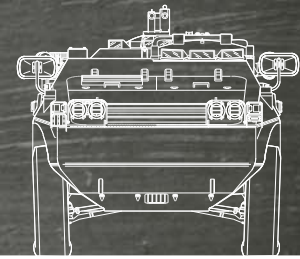
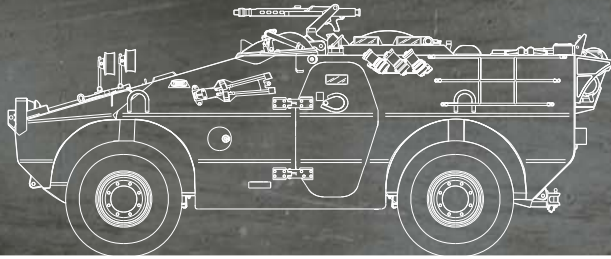


PUMA FAMILY



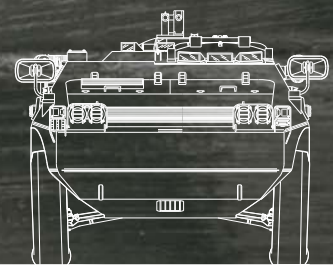
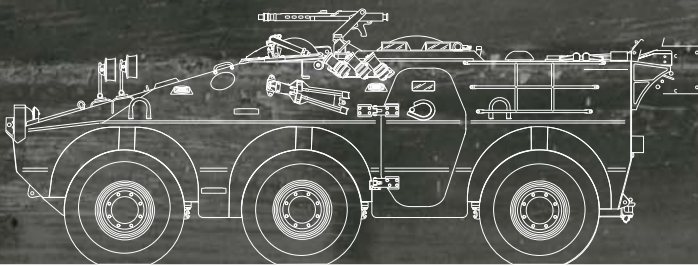
The PUMA family of light armoured vehicles has a low silhouette and is available in 4x4 or 6x6 versions. The hull is of all welded steel armour construction that provides protection from small arms fire and shell splinters. The centrally located commander's cupola can be fitted with a machine gun with a bore up to a 12.7mm. The hull has been designed to accept add-on armour to provide increased protection. The PUMA is powered by an Iveco 132 Kw four-cylinder engine with a turbo-intercooler which is coupled to a 5 speed Renk automatic transmission. Output from the gearbox goes through a transfer box to front and rear differentials. The vehicle has power assisted steering to the front axle on the 4x4 and the two front axles on the 6x6. Disc brakes are fitted to all wheels and are power assisted. The PUMAs are equipped with air-conditioning, heating, a pressurised NBC system, an engine compartment fire protection system (both automatic and manual) and a winch for self-recovery (this is electric on the 4x4 and hydraulic on the 6x6). The 4x4 PUMA carries four and the 6x6 carries seven. All vehicle types have 2 rows of three Galix smoke dischargers each. The vehicle is also configured so that additional weapon systems can be fitted. These include anti-tank systems (Milan or Panzerfaust), a 60 mm mortar, a crew machine gun and a 40 mm shell launcher (individual weapon version). The PUMAs are also fitted with a laser warning system, automatic smoke producer and automatic fire protection system in the crew compartment. The PUMA can be driven with the driver under armour through three day periscopes and night vision is provided by a light intensification device (IL). The vehicle is able to accommodate a number of different radio systems linked to three antennas. The PUMA can be transported by a CH47C helicopter or a transport aircraft (G222 aeroplane on).

PUMA 4X4



| | |
|----------------------|--|
| Crew | 6 + driver |
| Main Weapon | Oto Melara HITROLE® 7.62 - 12.7 mm |
| Secondary | TOW |
| Smoke Grenade | 6 X 80-mm launchers |
| F.C.S. | Turret electrical drives, Gunner's D/N Sight, optional: L.R.F., stabilisation |
| Protection | Ballistic steel body, with engine at front NBC system integrated into the air conditioner Fire Fighting System on the engine compartment |
| Mobility | Engine IVECO 4 cylinder (132kW), automatic transmission with 5 forward gears plus 1 reverse, max speed > 100 km/h, |
| Weight | 7 tons in combat order |

PUMA 6X6



| | |
|----------------------|---|
| Crew | 8 + driver |
| Main Weapon | Oto Melara HITROLE® 7.62 - 12.7 mm |
| Secondary | TOW |
| Smoke Grenade | 6 X 80-mm launchers |
| F.C.S. | Turret electrical drives, Gunner's D/N Sight, optional: L.R.F., stabilisation |
| Protection | Ballistic steel body, with engine at front NBC system integrated into the air conditioner Anti explosion and Fire Fighting System on the engine compartment |
| Mobility | Engine IVECO 4 cylinder (132kW), automatic transmission with 5 forward gears plus 1 reverse, max speed > 100 km/h, |
| Weight | 8 tons in combat order |



ARIETE MBT



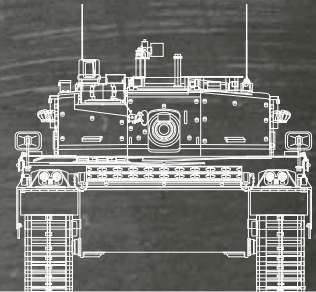
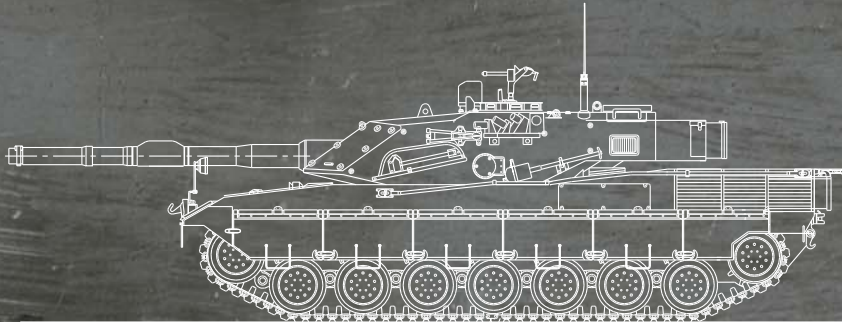
The ARIETE is a second generation main battle tank characterized by high performances, advanced armour protection and great fire power. Hull and turret are made of welded steel with new composite armour on the frontal arc. The power pack incorporates an Iveco V-12 MTCA turbocharged intercooled 12 cylinder diesel engine that develops 1275 hp, directly coupled to a fully automatic transmission. This provides four forward and two reverse speeds, allowing 3 ranges of steering radii and pivot as well as a double differential steering system with a hydrostatic drive and a hydraulic retarder.

The suspension system is of the torsion bar type. The center of the hull is taken up by the Oto Melara 120mm smooth-bore gun, stabilized on both axes.

A 7.62 mm machine gun is mounted coaxially to the main armament and the same weapon is mounted on the turret roof for local and air defence.

The gun can fire all available ammunition, both of the chemical and kinetic energy penetration type. FCS includes a panoramic periscope, a self stabilized optical sight with IR camera for day and night operations and a digital fire control computer.

ARIETE MBT



| | |
|----------------------|---|
| Crew | 4 |
| Main Weapon | Oto Melara 120 mm gun |
| Secondary | 2 x 7.62 NATO M.G. |
| Smoke Grenade | 8 x 80- mm launchers |
| F.C.S. | Commander's Panoramic Stabilized, D/N Sight and Gunner's IRT monitor Gunner's Stabilized D/N Thermal Sight with L.R.F., "Hunter Killer" capability |
| Protection | Steel hull and add on armour NBC system and integrated air conditioner Anti Explosion and Fire Fighting System Laser Warning Device |
| Mobility | Engine IVECO V12 MTCA diesel (1275hp), ZF LSG 1500 4-speed automatic transmission, max speed >65 km/h, |
| Weight | 54 tons in combat order |



DARDO FAMILY



The Dardo tracked Armoured Infantry Fighting Vehicle is a low silhouette, state of the art AIFV in terms of mobility, crew protection and firing power.

The hull is made by aluminium fitted by add on ballistic steel armour for improved ballistic, anti mine and ant IED's protection. Very compact in dimensions is a very low silhouette vehicle having a top chassis height of only 1,75 m and with very low specific ground pressure.

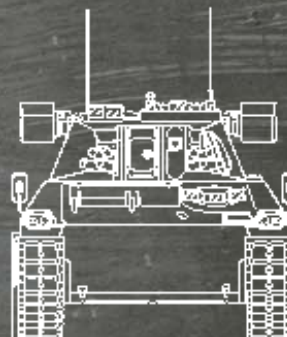
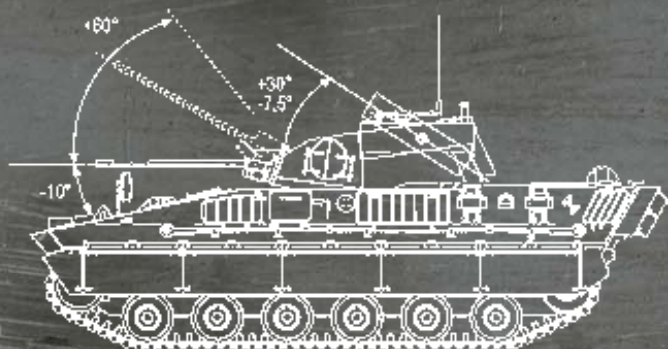
The DARDO power pack is located in the front of the hull and comprises an IVECO V6 MTCA turbocharged diesel engine, coupled to a ZF LSG 1500 automatic transmission. This provides four forward and two reverse speeds, as well as a double differential steering system with a hydrostatic drive and a hydraulic retarder. Firing power is provided by the HITFIST® two men turret, fitted by a 25 mm automatic gun and, as option, two ATGM launchers.

The turret is two axis stabilised, with Day and Night sighting and firing capability even on the move against land moving targets and hovering helicopters.

Dardo is a family of tracked vehicles, composed by:

- AIFV
- AIFV Anti Tank
- Ambulance
- Command Post
- Mortar Carrier

DARDO FAMILY



Crew

3 + 6

Main Weapon

Oto Melara HITFIST® 25MM KBA TURRET

Secondary

1x7.62 NATO M.G.

Smoke Grenade

8 X 80-mm launchers

F.C.S.

Turret electrical, stabilized drives and ballistic computer

Gunner: D/N Thermal Sight, L.R.F.

Commander: 6 episcopes + gunner IRT repetition monitor

optional: PANoramic Stabilized Sight

Protection

Ballistic aluminium alloy and add on armour

NBC system and integrated air conditioner

Anti explosion and Fire Fighting System

Mobility

Laser Warning Device

Engine IVECO V6 MTCA diesel (520Hp), ZF LSG 1500 4-speed automatic transmission, max speed >70 km/h,

Weight

Disk brake, trailing arms with torsion bar springs suspension

23 tons in combat order



IO Iveco - Oto Melara

Via Poma, 2 - 00195 Roma - Italy

T +39 06 37518250 - **F** +39 06 37350266

Iveco S.p.A. Defence Vehicles

Via Volta, 6 - 39100 Bolzano

T +39 0471 905205

F +39 0471 905490

Oto Melara S.p.A.

Via Valdilocchi, 15 - 19136 La Spezia

T +39 0187 583395

F +39 0187 582795

This document is property of IVECO - OTO MELARA Società Consortile a r.l.

Reproduction even partial not allowed. Description and illustration of this document are of an indicative nature only and shall not be held binding.

IVECO - OTO MELARA Società Consortile a r.l., reserves the right to introduce at any time and without public announcement, modifications, changes of details, equipment or accessories as considered necessary to improve the types described or for any other reason of a commercial or constructional nature.