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TEXTRON Systems



TEXTRON Marine & Land Systems



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A COMMANDO FOR EVERY MISSION

**WHEN UNSURPASSED PROTECTION, EXTREME MOBILITY,
AND MISSION-CUSTOMIZED VERSATILITY MATTER**

TEXTRON Systems

COMMANDO™
Elite



COMMANDO™
Utility



COMMANDO™
Advanced



COMMANDO™
Select



COMMANDO™
TEXTRON Marine & Land Systems



Message from Tom Walmsley



Greetings,

Today, Textron Marine & Land Systems is pleased to announce the delivery of a new generation of state-of-the-art armored vehicles, with the capabilities and tools to allow our warfighters to strike swiftly and successfully. Providing a range of capability and protection exceeding MRAP level +, unmatched on-road and off-road mobility, and ample firepower, our versatile COMMANDO™ vehicles can go almost anywhere and perform nearly any mission.

COMMANDO four-wheeled armored vehicles enable troops to strike swiftly by delivering exceptional performance across the full spectrum of military operations. Rigorously tested and proven in the toughest environments, the COMMANDO family of vehicles offers a range of affordable options to our customers. Drawing from four vehicle lines, Textron delivers customized capabilities that meet each customer's mission needs. As a full-spectrum armored vehicle provider, we're also there every step of the way, with vehicle fielding, training and logistics support in addition to excellence in vehicle design and manufacturing.

The COMMANDO family of vehicles includes the COMMANDO Advanced series, COMMANDO Select series, COMMANDO Elite series, and the COMMANDO Utility series. Each is customizable to deliver the unique multimission capabilities our customers require.

The COMMANDO Advanced four-wheeled armored vehicles, derived from our Armored Security Vehicles, have been combat hardened over 10 years in locations including Iraq, Afghanistan and Colombia. Crew protection is reinforced with a V-shaped monocoque hull and 360-degree protection from direct fire. COMMANDO Advanced vehicles in use by the U.S. Army have delivered an excellent operational readiness rate - consistently in excess of 90 percent.

The COMMANDO Select four-wheeled armored vehicles offer an enhanced combination of lethality, survivability, mobility and sustainability. MRAP level + crew protection is built into all COMMANDO Select vehicles, which are in use today in Afghanistan. Greater survivability, however, doesn't mean sacrificing vehicle mobility. These vehicles deliver greater mobility than other MRAP-type vehicles.

The COMMANDO Elite four-wheeled armored vehicles offer an optimum package of features and benefits. Our most highly-protected vehicles, the COMMANDO Elite series provides superior direct fire and MRAP level ++ mine-blast protection. These vehicles also come equipped with our latest drive-train enhancements, adding more maneuverability in a wider range of environments. As for lethality, COMMANDO vehicles can accommodate any combination of weapons. They also feature a digital backbone for vehicle systems monitoring and future electronics expansion.

The latest addition to our COMMANDO family of vehicles, the COMMANDO Utility vehicle, offers our customers a very versatile capability to provide support in both forward and rear echelon operational environments. These utility vehicles leverage our experience and many of the technologies incorporated in our armored vehicles to provide unparalleled support in rough terrain and other adverse conditions.

Whether serving as an ambulance, an armored personnel carrier, a command and control vehicle, a reconnaissance vehicle, a support utility vehicle - or directly engaging the enemy in combat - all of our COMMANDO vehicles are ready for action. And with Textron Marine & Land Systems' reliable vehicle fielding, training and logistics support package, our vehicles will continue to serve our customers with distinction for many years to come. The COMMANDO Family of Vehicles - Strike Swiftly.

Best Regards,

Thomas J. Walmsley
Sr. Vice President and General Manager
Textron Marine & Land Systems

www.textronmarineandland.com

A Legacy of Combat Proven Vehicles



1963: LAV-100 (light amphibious vehicle) developed. Used extensively in Vietnam.

1968: LAV-200 introduced. Amphibious like V-100, but a larger version.



Saudi Arabian LAV-150

1976: Introduction of the Armored Scout, a light four-wheeled reconnaissance vehicle sold to various friendly nations.



1978: LAV-300 developed to address the need for a six-wheeled vehicle. Fifteen variants, many still in service around the world.



Philippine LAV-150S

1988: CGT introduced the Commando V-600, a powerful 6x6 weapons platform mounting the 105-mm low recoil force gun turret system.



1995: Prototype development initiated for the M1117 ASV, engineered for optimized survivability and performance.

2003: Full production for use by U.S. Army MPs in the Middle East began.

2006 - 2012: Development of several variants with higher protection levels and additional armament options. APC variants sold to Iraq, Colombia, and Afghanistan.



Tactical Armoured Patrol Vehicle (TAPV)



Alghan APC with Objective Gunner Protection Kit

2006 - 2012: Working with Canadian DND, development of Tactical Armoured Patrol Vehicle to meet DND requirements for increased crew space with enhanced mobility, survivability, and performance.

Our legacy began with the V-100. It was the first in a series of 4x4 Armored Security Vehicles, was developed in 1963 with amphibious capability and used extensively in the Vietnam conflict, particularly for reconnaissance and in convoy escort roles.

Based on lessons learned from Vietnam, the V-150 was developed as a hybrid variant, had some V-100 features and could be equipped with diesel or gasoline engines. Most were produced for the Royal Saudi Arabian National Guard.

Textron Marine & Land Systems later developed a 6X6, light armored vehicle. The V-300 series includes 15 variants. The Cadillac Gage V-300 is Textron Marine & Land Systems only six-wheeled vehicle that is still in service internationally.

As the world changed, the Military Police Corps defined a requirement for a four-wheeled armored vehicle to be used by its MP teams. In 1995, Textron Marine & Land Systems began development of the M1117 Armored Security Vehicle. This vehicle provided crew protection in a light and lethal vehicle. It offered substantially increased security, mobility and survivability far superior to the HMMWV used throughout the army.

Driving in Iraq and Afghanistan had remained dangerous and deadly for our troops. The safer alternative was Textron Marine & Land Systems' M1117 Armored Security Vehicle or the ASV. This ASV filled the gap between heavier armored vehicles and small trucks, with a long list of protective advances.

The vehicle includes optimized survivability, all terrain performance, and increased lethality. The ASV monocoque hull is comprised of welded armored steel and ceramic armor appliqué combined with composite inner spall liner. This enhanced ballistic protection provides 360-degree defense against direct and indirect weapons, mines, and improvised explosive devices. The ASV's record for protecting its soldiers from RPGs, mines and IED attacks is unmatched by any vehicle in its class. Add to that a top speed of over 65 mph, and you have a vehicle that delivers.

It's no accident that more than 3,100 ASVs have rolled off our production line to the U.S. Army and are in the hands of our warfighters.

Combining more than 45 years of experience of military vehicle design, development, and production Textron Marine & Land Systems is one of the most experienced manufacturers of wheeled armored military vehicles in the world. Textron Marine & Land Systems has designed, produced and delivered more than ten thousand armored vehicles to the United States, international military and police forces.



COMMANDO™ Advanced

COMMANDO Advanced four-wheeled armored vehicles, derived from our Armored Security Vehicles (ASV), are combat proven over 10 years, in locations including Afghanistan, Iraq and Colombia. These durable armored vehicles offer excellent on-road and off-road mobility enabling them to operate in urban, jungle, desert and mountainous terrain. Crew protection is reinforced with a V-shaped hull bottom and 360-degree protection from direct fire. Customers utilizing the current COMMANDO Advanced fleet can upgrade to MRAP+ crew protection through an Enhanced Survivability package. Commonality across COMMANDO vehicle types makes them easy to operate, maintain and repair. COMMANDO Advanced vehicles are extremely dependable. Those in use by the U.S. Army have delivered an excellent operational readiness rate - consistently above 90 percent.



Reconnaissance Vehicle

COMMANDO Advanced Recon Vehicles provide an armored reconnaissance platform that incorporates both ballistic and blast protection.



Armored Personnel Carrier

COMMANDO Advanced Armored Personnel Carriers (APCs) provide additional troop capacity to a highly mobile, survivable medium armored vehicle.



Armored Security Vehicle

COMMANDO Advanced Armored Security Vehicles provide substantially increased mobility and survivability compared to other medium armored vehicles.

Specifications

Weight

Gross Vehicle Weight	
ASV	33,000 lb (14,969 kg)
APC.....	36,000 lb (16,329 kg)
Recon	36,000 lb (16,329 kg)

Dimensions

Length	
ASV	237 in (6.07 m)
APC/Recon.....	261 in (6,629 mm)
Width	101 in (2.56 m)
Height	102 in (2.59 m)
Ground Clearance.....	18 in (.46 m)

Performance

Speed.....	65+ mph (105+ kph)
Range @ 40 mph (64 kph)	
ASV	440 miles (708 km)
APC/Recon.....	400 miles (644 km)

Turning Diameter

ASV	55 ft (16.7 m)
APC/Recon.....	65 ft (19.8 m)

Gradient..... 60%

Side Slope 30%

Vertical Wall

ASV	22 in (.56 m)
APC.....	22 in (.56 m)
Recon.....	22 in (.56 m)

Fording 60 in (1.5 m)

Air Transportability (ASV) C-17 carries 6

Survivability Protection from direct/indirect weapons, mines, and IEDs

Armament

ASV	Turret: 40-mm MK-19, .50 cal M2HB
APC.....	Various, depending on customer needs
Recon	TUA, Cupola

Power Train

Engine	
ASV	Cummins 6CTA8.3, 260 hp/828 lb-ft
APC.....	Cummins 6CTA8.3, 260 hp/828 lb-ft
Recon.....	Cummins 6CTA8.3, 260 hp/828 lb-ft
Transmission	Allison 6-speed

Tires Michelin 14.00R20 XZL, Run Flat Inserts

Suspension..... Fully independent

Seating

ASV	With turret: 3 crew, 1 dismount; with OGPK or RWS: 3 crew, 2 dismounts
APC.....	With turret: 3 crew, 4 dismounts; with OGPK or RWS: 3 crew, 7 dismounts
Recon.....	Up to 3 crew and 4 dismounts

Mission equipment options are available, according to customer specification. Additional COMMANDO Advanced variants include: Command & Control Vehicle; Engineering Vehicle; and Maintenance Vehicle.

COMMANDO™ Select

COMMANDO Select four-wheeled armored personnel carriers offer an enhanced combination of lethality, survivability, mobility and sustainability. MRAP+ crew protection is built into all COMMANDO Select vehicles. Greater survivability however doesn't mean sacrificing vehicle mobility - these vehicles deliver greater mobility than other MRAP-type armored vehicles on the market. Our COMMANDO Select vehicle can be configured to accommodate up to 10 (three crew plus passengers) to enable greater troop carrying capacity. Select vehicles are designed to be easy to operate and maintain, with readily available parts, training and service support.



APC with Turret

COMMANDO Select Armored Personnel Carriers with Turret substantially increase security, mobility and survivability using knowledge gained from more than 10 years of dual combat theater use.



APC Ambulance

COMMANDO Select Armored Personnel Carrier Ambulance provides ballistic and blast protection to the medical crew during patient treatment and transport.



Mortar Vehicle

COMMANDO Select Mortar vehicles meet the emergent requirements of today's combat units for a more operationally flexible and adaptable indirect fire capability while taking advantage of the vehicle's mobility and survivability.

Specifications

Weight

Gross Vehicle Weight38,000 lb (17,237 kg)

Dimensions

Length261 in (6,629 mm)

Width (overall)108 in (2,743 mm)

Height.....119 in (3,022 mm)

Ground Clearance.....26 in (660 mm)

Performance (at 35,100 lb)

Speed (level hard surface)62 mph (100 kph)

Acceleration 0-20 mph (0-32 kph)8 sec

Acceleration 0-50 mph (0-80 kph)30 sec

Range @ 40 mph (64 kph).....400 miles (644 km)

Turning Diameter.....65 ft (21.3 m)

Gradient60%

Side Slope.....30%

Vertical Wall.....22 in (.56 m)

Fording.....60 in (1.5 m)

Tires Michelin 16.00R20 XZL with run flat inserts

Suspension.....Fully independent front and rear, upper and lower control arms

Power Train

Engine Cummins 6CTA8.3, 280 hp peak, 825 lb-ft

TransmissionAllison 6-speed

SightsM-36 day/night gunner's sight

Armament..... Turret: 40-mm MK-19, .50 cal M2HB

Survivability.....Protects against direct and indirect weapons, mines and IEDs

Seating

APC With turret: 3 crew, 4 dismounts; with OGPK or RWS: 3 crew, 7 dismounts

APC SWB..... With turret: 3 crew, 1 dismount; with OGPK or RWS: 3 crew, 2 dismounts

Ambulance.....3 crew and up to 2 ambulatory, 2 litter patients

Mission equipment options are available, according to customer specification. Additional COMMANDO Select variants include: Command & Control Vehicle; Engineering Vehicle; Maintenance Vehicle; Objective Gunners Protection Kit; and Recon Vehicle.

COMMANDO™ Elite

COMMANDO Elite four-wheeled armored vehicles are our most highly-protected and capable vehicles, providing superior direct fire and MRAP+ mine-blast protection. COMMANDO Elite vehicles come equipped with our latest drive train enhancements making them fast and highly maneuverable in a wide range of environments. Lethality is achieved through multiple sensors and weapons options. COMMANDO Elite vehicles are flexible enough to accommodate nearly any remote weapon station available - single or dual weapon mix. They also feature a digital backbone for vehicle systems monitoring and future electronics expansion. COMMANDO Elite vehicles are easy to maintain and repair, with readily available parts, training and service support.



COMMANDO Elite Vehicles

The COMMANDO Elite class comprises the best 4x4 armored vehicle on the market, featuring the ultimate package of sustainability, mobility, lethality and survivability.

Specifications

Weight

Gross Vehicle Weight.....	38,000 lb (17,237 kg)
Curb Weight	32,500 lb (14,742 kg)

Performance (at 38,000 lb)

Speed (level hard surface).....	65 mph (105 kph)
Range @ 50 mph (80 kph).....	400 miles (644 km)
Gradient.....	60%
Side Slope	30%
Vertical Wall.....	24 in (.6 m)
Fording	60 in (1.5 m)

Tires Michelin 16.00R20 XZL with Hutchinson run flat inserts

Suspension..... Fully independent front and rear, upper and lower control arms

Power Train

Engine.....	Cummins QSL 365, 365 hp, 1113 lb-ft
Transmission	Allison 6-speed

Armament Various (depending on customer needs)

Survivability Protects against direct and indirect weapons, mines and IEDs

Situational Awareness Unaided 360 degrees

Other Mission Equipment Options

Add-on Armor	Customer specification
Turret Enhancements.....	Customer specification
Alternator	400- and 575-amp alternator
ABS.....	Customer specification
NAV/GPS	Customer specification
NBC Individual/Overpressure.....	Customer specification
360-Degree Situational Awareness (Night/Day)	Customer specification

Seating..... With turret: 3 crew, 2 dismounts; with OGPK or RWS: 3 crew, 4 dismounts

Mission equipment options are available, according to customer specification. Additional COMMANDO Elite variants include: Command & Control Vehicle; Engineering Vehicle; Maintenance Vehicle; and Recon Vehicle.

COMMANDO™ Utility

COMMANDO Utility vehicles are designed to facilitate unique mission requirements in forward and rear echelon operational environments. Technologically advanced, these utility vehicles perform demanding tasks with ease, allowing users to complete tasks efficiently and safely. COMMANDO Utility vehicles are backed by the same Textron name that has become synonymous with safety, reliability, durability and value. Choose a COMMANDO Utility vehicle for your service requirements.



The Baserunner allows you to take command with a 4x4 selectable gas/electric hybrid vehicle. In gas mode, the Baserunner powers through rough terrain and adverse conditions while electric mode provides quiet vehicle operation.



GRANITE
TACTICAL VEHICLES INC

Granite's Small Combat Tactical Vehicle™ (SCTV™) System is an MRAP-style fully armored monocoque v-hull crew capsule designed to replace the crew compartment of the HMMWV in a one-for-one exchange.

Standard Equipment

Baserunner

In addition to the option for gas or electric mode for mission efficiency, rack and pinion steering and four-wheel hydraulic brakes protect your precious cargo while independent front suspension and 480cc, 16 hp engine or 48V DC, 20 hp motor help ensure you're always on time on target. Complete the mission with the Baserunner and return satisfied with another job well done.

- 48V heavy-duty DC, 20 hp electric motor (2WD mode)
- 480 cc, 16 hp V-twin engine (2WD mode)
- Electric/gas hybrid (4WD mode)
- Rack and pinion steering
- Four-wheel hydraulic brakes
- Locking rear differential
- Independent front suspension
- Heavy-duty rear leaf springs
- 9.6 cu ft cargo bed
- 1-3/4" tubular steel operator protective structure (OPS)
- Three-point seat belts
- Side safety nets
- 25-inch aggressive-tread tires
- Front brush guard
- 12-volt accessory outlet with USB port
- Headlights/taillights
- 48V battery charger
- Bucket seats
- Aluminum dump bed
- LED light package
- Winch kit
- Desert Tan paint package

Survivable Combat Tactical Vehicle™ (SCTV™) System for HMMWV

The SCTV is a lightweight, highly protected system that is low in maintenance, easy to fit, easy to maintain, easy to transport, and compatible with all versions of HMMWVs currently in service. It is manufactured as a two-piece unit that offers greater survivability to the crew and vehicle while maintaining characteristics of the original HMMWV cab by utilizing the existing controls, linkages and drive systems - the familiar and proven characteristics that make the HMMWV the vehicle of choice.

- Door windows slide open internally or externally
- Rear window easily released for emergency evacuation
- Blast protection seats with five-way restraining harnesses
- Aircon Front: 550CFM - 20,000 cool and 22,000 heat
- Aircon Rear: 600CFM - 24,000 cool and 26,000 heat
- Armored driveline tunnel isolates fuel cell from crew compartment
- Batteries housed outside crew compartment
- Bolt-In back wall allows for the installation of a rear door
- Interior finished with heavy duty, fire retardant insulation panels
- Emtech thermal guard soft interior headliner
- Smooth interior to reduce physical hazards to crew
- Roof supports weight & function of most gunner protection kits & weapon systems currently in use
- NBC overpressure system-capable
- Supports Kidde fire suppression system

Other Available Vehicle Platforms



Millenworks Light Utility Vehicle

State-of-the-art test bed for emerging automotive technologies:

- Hybrid Electric Drivetrain
- Plug In Hybrid Electric Vehicle utilizing J1772 interconnect
- Improved combat mobility, ride quality, and roll stability via semi-active suspension using MR struts
- Superior cockpit ergonomics, centered driving position for improved visibility
- Upgradeable armored hull that supports advanced B-kit appliqué solutions
- Scalable Vehicle Area Network enables future support of advanced prognostics and diagnostics



The Tiger All Terrain Combat Vehicle

Survivable, light protected all-terrain vehicle

- Incorporates a proprietary armored capsule mounted on a modified commercial Dodge® RAM® pickup
- Various armor levels available
- Cost-effective
- Configurations include patrol, convoy protection, troop carrier, medevac, C2, UAV control and launch, reconnaissance, NBC/engineering, and logistics vehicles
- Lightweight
- All-terrain, with Cummins 400 hp engine, 127-inch wheelbase, advanced suspension, and MPT 80 12.5X20" wheels



A Legacy of Lethality - Turrets

TM&LS has long legacy of experience with turreted weapon system design, development, integration and production fielding on both wheeled and tracked vehicles. Our weapon system product line integrates weapon calibers



USMC Uppgunned Weapon System

from small machine guns to 105mm main tank weapons. The weapon/turret drive and fire control capabilities in these systems range from manual hand controls for the smaller caliber systems to stabilized, full solution fire control capability for the 105mm class systems.

TM&LS originally designed and produced the Uppgunned Weapon System (UGWS) to U.S. Marine Corps requirements. The UGWS was successfully tested during DT/OT I and DT/OT II and over 340 units were produced for the Marine Corps. The UGWS has proven to be a reliable and durable one-man turret system.

A slightly modified version of the UGWS turret is currently integrated into the M1117 Armored Security Vehicle (ASV). The TM&LS ASV turret incorporates proven, tested, and fielded components from the UGWS system into a dedicated, ballistically sound, ergonomically enhanced turret with a reduced silhouette. The M1117 ASV turret is currently in production with over 3,500 units produced for the US Army and international customers.



Legacy TM&LS UGWS Turret

More recently, TM&LS has developed an enhanced version of the ASV turret that incorporates the following enhancements:

More recently, TM&LS has developed an enhanced version of the ASV turret that incorporates the following enhancements:

- Proportional controls
- Dual-axis stabilization for the weapon and turret
- Improved electro-optics via integration of a laser rangefinder and cooled thermal imager.



Current production M1117 ASV Turret

These capabilities can be retrofitted to currently fielded ASV and UGWS turrets or supplied as new production turrets.

TM&LS also developed an advanced 105mm turret for the USMC's Assault Gun version of the LAV Family of Vehicles (LAV-AG). This advanced turret integrated dual axis stabilization for the turret/weapon and the gunner's sight, full solution digital fire control, laser rangefinder and thermal imaging optics.

Turret systems currently in development include an unmanned remote version of the 40/50 turret plus 25mm and 30mm turrets.

TM&LS' broad experience in lethality system development, integration, validation and test will be applied to developing optimum lethality solutions for the ASV, TAPV or any wheeled or tracked vehicle platform.

At right: United States Marine Corps Advanced LAV-105mm System



Dual Machine Gun Turret (1M)

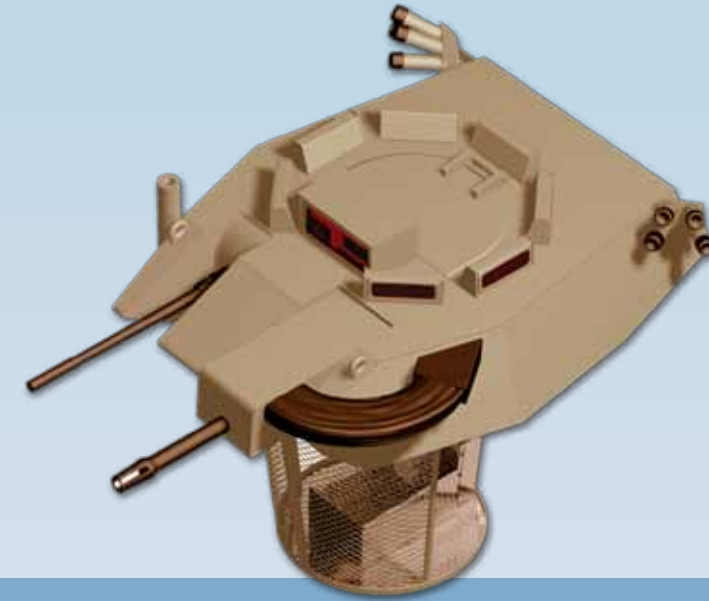


Specifications

Weight Combat Ready	2,150 lb (975 kg), less gunner
Armament	Provision for mounting twin 7.62-mm machine guns, .50 caliber machine guns or combination 7.62-mm/.50 cal machine guns (optional)
Grenade Launchers	Optional
Ballistic Protection	Protects against direct and indirect weapons Higher protection levels available as an option
Vision	8 direct-view blocks with spall shields
Gunner	Day/night sight
Ring Gear	1 meter (39.36 in.), pitch diameter
Seating	1 man
Traverse (Continuous)	360 degrees
Traverse Mechanism	Power assisted traverse with manual backup
Maximum Traverse Rate	50 degrees per second
Elevation	+55 degrees
Elevation Mechanism	Manual
Depression	-8 degrees
Method of Firing	Electrical with manual back-up
Slip Ring	12 channel communication
Night Illumination	500,000 candlepower coaxial mounted spotlight
Ventilation	Turret Blower
Ammunition Storage	
.50 caliber	200 ready rounds per gun
7.62-mm	400 ready rounds per gun
Smoke Grenades	8 ready rounds, 8 rounds stowed

Specifications are subject to change without notice

40MM/.50 Cal. Standard Turret



Specifications

Weight Combat Ready	2,350 lb (1,066 kg), less gunner
Armament	
Primary Weapon	40-mm MK 19, Mod 3 (included)
Secondary Weapon50 caliber M2HB (included)
Grenade Launcher	Optiona
Vision	360 degrees, 7 vision blocks with spall shields
Gunner	M36 day/night sight (modified)
Ring Gear	1 meter (39.36 in.), pitch diameter
Seating	1 man
Turret Power	Electric, 24 VDC
Traverse (Continuous)	360 degrees
Traverse Type	Manual fine lay with electric assist
Traverse Rate (High Speed)	45 degrees per second (minimum)
Elevation	45 degrees
Depression	-8 degrees
Elevation Type	Manual
Fire Interrupter	Electric
Method of Firing	Electric with manual backup
Spotlight	500,000 cp, coaxial (1,000,000 cp, optional)
Slip Ring	12-channel communication
Ammunition Storage	
Primary	96 ready rounds of 40mm
Secondary	200 ready rounds of .50 caliber
Smoke Grenades	8 ready rounds, 8 rounds stored

Specifications are subject to change without notice

40MM/.50 Cal. Enhanced Turret



Specifications

Weight Combat Ready	2,350 lb (1,066 kg), less gunner
Armament	
Primary Weapon	40-mm MK 19, Mod 3 (included)
Secondary Weapon50 caliber M2HB (included)
Grenade Launcher	Optional
Fire Control	Day/thermal/laser sight
Ring Gear	1 meter (39.36 in.), pitch diameter
Seating	1 man
Turret Power	Electric, 24 VDC
Traverse (Continuous)	360 degrees
Weapon/Turret Drive Controls	Electromechanical power controls with manual backup Stabilization (optional)
Traverse Rates	
Slew Speed	45 degrees per second (minimum)
Tracking Speed	0.5 mils per second
Elevation Rates	
Slew Speed	45 degrees per second
Tracking Speed	0.5 mils per second
Depression	-8 degrees
Fire Interrupter	Electric
Method of Firing	Electric with manual backup
Spotlight	500,000 cp, coaxial (1,000,000 cp, optional)
Ammunition Storage	
Primary	96 ready rounds of 40mm
Secondary	200 ready rounds of .50 caliber
Smoke Grenades	8 ready rounds, 8 rounds stored

Specifications are subject to change without notice

40MM/.50 Caliber Remote Turret



Specifications

Weight Combat Ready	2,000 lb (907 kg)
Armament*	
Primary Weapon	40-mm MK 19, Mod 3 (included)
Secondary Weapon50 caliber M2HB (included)
Grenade Launcher	Optional
Ballistic Protection	Protects against direct and indirect weapons Higher protection levels available via modular appliqué
Fire Control	Day camera/laser/thermal sight Ballistic computer (optional)
Ring Gear	39.37 in (100 cm) diameter
Gunner's MMI	Console with 12- to 15-inch monitor and joystick controller
Seating	None-Remote controlled by gunner seated in vehicle
Turret Power	Electric, 24 VDC
Traverse (Continuous)	360 degrees
Weapon/Turret Drive Controls	Electromechanical power controls w/manual backup Stabilization (optional)
Traverse Rates	
Slew Speed	45 degrees per second (minimum)
Tracking Speed	0.5 mils per second
Elevation Rates	
Slew Speed	45 degrees per second
Tracking Speed	0.5 mils per second
Depression	-8 degrees
Fire Interrupter	Electric
Method of Firing	Electric with manual backup
Spotlight	500,000 cp, coaxial (1,000,000 cp, optional)
Slip Ring	Power, communication, signal and video pass-through
Ammunition Storage	
Primary	96 ready rounds of 40mm
Secondary	200 ready rounds of .50 caliber
Smoke Grenades	8 ready rounds, 8 rounds stored

*Other weapon combinations (40mm/7.62mm, 0.50cal/7.62mm are optionally available)

Specifications are subject to change without notice

25MM Remote Turret



Specifications

Weight Combat Ready	2,500 lb (1,135 kg)
Armament	
Primary Weapon	25-mm M242 Bushmaster Automatic Cannon
Secondary Weapon	7.62mm MG (optional)
Grenade Launcher	Optional
Ballistic Protection.....	Protects against direct and indirect weapons Higher protection levels available via modular appliqué
Fire Control	Day camera/laser/thermal sight Range performance per customer requirements Full solution ballistics (optional)
Ring Gear	39.37 in (100 cm) diameter
Gunner's MMI	Console with 12- to 15-inch monitor and joystick controller
Seating	None-Remote controlled by gunner seated in vehicle
Turret Power	Electric, 24 VDC
Traverse (Continuous).....	360 degrees
Weapon/Turret Drive Controls	Electromechanical power controls w/manual backup Stabilization (optional)
Traverse Rates	
Slew Speed	45 degrees per second (minimum)
Tracking Speed.....	0.5 mils per second
Elevation Rates	
Slew Speed	45 degrees per second
Tracking Speed.....	0.5 mils per second
Depression	-8 degrees
Fire Interrupter	Electric
Method of Firing	Electric with manual backup
Spotlight	500,000 cp, coaxial (1,000,000 cp, optional)
Slip Ring	Power, communication, signal and video pass through
Ammunition Storage	
Primary	200 ready rounds of 25mm
Secondary	200 ready rounds of 7.62mm
Smoke Grenades.....	8 ready rounds, 8 rounds stored

Specifications are subject to change without notice

30MM Remote Turret



Specifications

Weight Combat Ready	2,350 lb (1,066 kg)
Armament	
Primary Weapon	30-mm M230LF
Secondary Weapon	7.62mm MG (optional)
Grenade Launcher	Optional
Ballistic Protection.....	Protects against direct and indirect weapons Higher protection levels available via modular appliqué
Fire Control	Day camera/laser/thermal sight Range performance per customer requirements Full solution ballistics (optional)
Ring Gear	39.37 in (100 cm) diameter
Gunner's MMI	Console with 12- to 15-inch monitor and joystick controller
Seating	None-Remote controlled by gunner seated in vehicle
Turret Power	Electric, 24 VDC
Traverse (Continuous).....	360 degrees
Weapon/Turret Drive Controls	Electromechanical power controls w/manual backup Stabilization (optional)
Traverse Rates	
Slew Speed	45 degrees per second (minimum)
Tracking Speed.....	0.5 mils per second
Elevation Rates	
Slew Speed	45 degrees per second
Tracking Speed.....	0.5 mils per second
Depression	-8 degrees
Fire Interrupter	Electric
Method of Firing	Electric with manual backup
Spotlight	500,000 cp, coaxial (1,000,000 cp, optional)
Slip Ring	Power, communication, signal and video pass through
Ammunition Storage	
Primary	200 ready rounds of 30mm
Secondary	200 ready rounds of 7.62mm
Smoke Grenades.....	8 ready rounds, 8 rounds stored

Specifications are subject to change without notice

30-40MM Remote Turret



90MM Turret



Specifications

Weight Combat Ready	3,000 lb (1,360kg)
Armament	
Primary Weapon	30-mm MK44 Bushmaster Automatic Cannon
Secondary Weapon	7.62mm MG (optional)
Grenade Launcher	Optional
Ballistic Protection.....	Protects against direct and indirect weapons Higher protection levels available via modular appliqué
Fire Control.....	Day camera/laser/thermal sight Range performance per customer requirements Full solution ballistics (optional)
Ring Gear	39.37 in (100 cm) diameter
Gunner's MMI	Console with 12- to 15-inch monitor and joystick controller
Seating	None-Remote controlled by gunner seated in vehicle
Turret Power	Electric, 24 VDC
Traverse (Continuous).....	360 degrees
Weapon/Turret Drive Controls	Electromechanical power controls w/manual back-up Stabilization (optional)
Traverse Rates	
Slew Speed	45 degrees per second (minimum)
Tracking Speed.....	0.5 mils per second
Elevation Rates	
Slew Speed	45 degrees per second
Tracking Speed.....	0.5 mils per second
Depression	-8 degrees
Fire Interrupter.....	Electric
Method of Firing	Electric with manual backup
Spotlight	500,000 cp, coaxial (1,000,000 cp, optional)
Slip Ring	Power, communication, signal and video pass through
Ammunition Storage	
Primary	200 ready rounds of 30mm
Secondary	200 ready rounds of 7.62mm
Smoke Grenades.....	8 ready rounds, 8 rounds stored

Specifications are subject to change without notice

Specifications

Weight Combat Ready	4,600 lbs (2,086 kg), less crew
Armament	
Main.....	90-mm Cockerill Cannon
Secondary (coaxial)	Provision for mounting 7.62-mm machine gun (weapon optional)
Turret Ring Mount.....	7.62-mm pintle and cradle (weapon optional)
Grenade Launchers.....	Optional
Ballistic Protection.....	Protects against direct and indirect weapons Higher protection levels available as an option
Fire Control.....	Day
Ring Gear	54-inch (137 cm) pitch diameter
Seating	Two-man (commander/loader and gunner)
Turret Power	Electromechanical with manual backup Stabilization (optional)
Traverse (Continuous).....	360 degrees
Traverse Rate.....	30 degrees per second
Elevation.....	+28 degrees
Elevation Rate	30 degrees per second
Depression	-8 degrees
Deck Clearance	Automatic with override
Tracking Rate.....	0.5 mil per second
Method of Firing	Electrical with manual back-up
Stabilization	Two-axis
Slip Ring	Power, communication, signal and video pass through
Night Illumination.....	500,000 candlepower coaxial mounted spotlight
Ventilation	Turret blower
Ammunition Stowage	
90mm	8 ready rounds in turret
7.62mm	400 ready rounds in turret; 200 ready rounds at ring mount
Smoke Grenades.....	8 ready rounds; 8 rounds stowed
Accessories (standard).....	Oddment box in turret Stowage for spare coaxial barrel and 90mm weapon service kit

Specifications are subject to change without notice

105MM Turret



Specifications

Weight Combat Ready	8,500 lb (3,856 kg)
Vision	8 direct-view blocks with spall shields
Commander.....	4 periscopes, thermal day/night remote monitor Stabilized thermal day/night sight with laser range finder
Gunner.....	4 periscopes, auxiliary backup sight
Ballistic Protection.....	Special high-hardness steel ballistic plate
Ring Gear	67-inch pitch diameter
Armament	
Main.....	Benet M35 lightweight 105-mm gun
Secondary	7.62mm coax
Supplementary Commander's Pedestal	
Mount (optional)	7.62-mm or .50 caliber machine gun, or 40-mm grenade launcher (weapons optional)
Grenade Launchers	Optional
Seating	Two-man (commander and gunner)
Autoloader	Electromechanical
Digital Fire Control.....	Digital full solution fire control center computer
Gun/Turret Drive	Electromechanical with manual backup, gunner and commander control
Traverse (Continuous).....	360 degrees
Traverse Rate.....	750 mil per second (operator cmd)
Elevation/Depression.....	+15 degrees, -8 degrees
Elevation Rate	100 mil per second (operator cmd)
Tracking Rate.....	25 mil per second (traverse) 0.1 mil per second (elevation)
Method of Firing	Electrical with manual back-up
Stabilization	Two-axis

Specifications are subject to change without notice

About Textron Marine & Land Systems



TM&LS New Orleans shipyard/armored vehicle fabrication facility



TM&LS armored vehicle outfitting facility, Slidell, LA



TM&LS Administrative and Engineering offices, Slidell, LA



TM&LS warehouse facility, Slidell, LA

Textron Marine & Land Systems' roots date back to 1935 as Bell Aircraft Corporation. In 1960, Textron Inc. acquired the defense business, creating Bell Aerosystems Company as one of three operations, until becoming an operating division of Textron Inc. in 1970, when the name changed to Bell Aerospace Textron. In July 1986, the New Orleans operations split from Bell Aerospace and a separate division, Textron Marine Systems, was created.

Cadillac Gage, founded in 1941, became the largest U.S. manufacturer of wheeled combat vehicles. Earning a reputation for high quality, reliable and combat-proven vehicles, this business became Cadillac Gage Textron in 1986.

In 1994, Textron Inc. responded to emerging changes by aligning the combat vehicle operations of Cadillac Gage Textron (CGT) and Textron Marine Systems (TMS).

The new Textron division created through this alignment was named Textron Marine & Land Systems, based in New Orleans, Louisiana. Because of the name recognition and excellent reputation of CGT in the international marketplace, the name Cadillac Gage has been retained for the combat vehicle products of Textron Marine & Land Systems, and the CGT company still exists as a legal entity. Functionally, however, all departments and key personnel work together as part of a unified workforce at the TM&LS facilities in New Orleans and Slidell, Louisiana.

In conjunction with a Textron transformation effort across the corporation that directed realignment, Textron Marine & Land Systems became an operation of Textron Systems in January 2001.

TM&LS is a Capability Maturity Model[®] Integration (CMMI[®]) Level 3 company that provides program management, engineering, manufacturing, and logistics support services on a number of large and complex programs for the DoD, and numerous domestic and international customers.

Textron Systems, a wholly-owned subsidiary of Textron Inc., employs a workforce of 4,880 and is headquartered in Wilmington, MA. The company provides innovative technology solutions to meet the needs of the global aerospace and defense industries, and supports military precision engagement and dominant maneuver with Strike Weapons and Mobility and Surveillance Systems. The Textron Marine & Land Systems Operations, which includes Cadillac Gage Combat Vehicle production, remains located in New Orleans, LA.