PROTEC™ SERIES OF HIGH MOBILITY INDEPENDENT SUSPENSIONS AND ALL-WHEEL DRIVE SYSTEMS
The ProTec Family of High Mobility Independent Suspensions delivers a two-tiered approach to not only protecting vehicle operators and passengers, but supporting the success of their missions as well. First, the design sensibility of the ProTec SERIES facilitates optimum blast mitigation, deflecting force away from the vehicle, rather than bearing the full force of a ground explosion.

But more importantly, the weight-efficient, payload-maximizing design of the ProTec HMIS line also increases the capacity of the vehicle to add more incremental armor. More armor means a greater level of protection in extreme combat environments, a benefit made possible by the innovative ProTec design.

Make no mistake about it – gains in weight savings and payload capacity do not compromise the ProTec HMIS line’s stringent performance standards or durability. In fact, due to technological advancements in materials and componentry, both weight savings and durability reach unparalleled standards with this innovative product line.
Consider the following features and benefits made possible by the technology behind the ProTec HMIS family

- A tight turning radius – up to 38 degrees – delivers maximum maneuverability demanded by the extreme combat environment
- Total wheel travel clearance up to 21 inches results in outstanding off-road mobility
- Optional limited slip differential (with hydraulically actuated clutch pack lockout), no-spin differential and driver-controlled differential lock further enhance performance
- Versatile Meritor amboid gearing is sized to fit any application requirement
- Performance at lighter weights as well as heavy-duty applications is ensured with a broad range of system ratings
- Meritor’s global aftermarket support system stands behind every Meritor military suspension sold

THE PROTEC HMIS SERIES 30, SERIES 40 AND SERIES 50. OFFERING PREMIUM PROTECTION AND PERFORMANCE FOR THOSE WHO PROTECT US.

The ProTec HMIS Series 30: GAWRs up to 14,000 lbs.
The ProTec HMIS Series 40: GAWRs up to 23,000 lbs.
The ProTec HMIS Series 50: GAWRs up to 29,000 lbs.
Now offering unparalleled protection and weight efficiency for those who protect us.
The ProTec HMIS Series has been designed to give you the choices and versatility necessary to meet your exact vehicle performance objectives. Air springs, coil springs, airstruts, hydrostuts — you know your high-mobility application better than anyone. Let the customization and versatility offered by the ProTec HMIS family put you in a position to succeed in any environment.

Dual Air Spring

- Use in low-profile vehicles where compact packaging is a must
- Facilitates easy lowering and transport in military aircraft
- Replaces beam axle used in some military vehicles for greater performance
- Enhances suspension mobility through a unique patent-pending six-link design
- Up to 150 pounds lighter than steel-coil suspensions
- Allows wheel travel up to 20 inches

Single Coil

- Combat-tested system reliability and durability in armored personnel
- Available with drum brakes for armored security vehicles or air disc brakes for MRAP vehicles
- Enables pre-programmed settings for optimum performance in highway, cross-country, mud, sand, snow and transport (kneel) environments
- Symmetrical design allows identical parts to be used on both sides of the suspension for additional savings
- Ideal for 8x8 vehicles in which all four axle positions use dual air springs, such as the FTTS-MSV
- Suitable for use in both 4x4 and 6x6 vehicles
ALSO ENSURING MISSION SUCCESS FROM MERITOR DEFENSE

ULTIMATE DURABILITY. Unparalleled innovation. Premium performance in extreme environments. You can expect it all in a Meritor product build for military or any heavy-duty application. Axles, transfer cases, drivelines—Meritor builds the components that can power you to mission success.

Military Axles
Engineered and built for the extreme demands of the military-duty cycle, Meritor Military Axles have been the axle of choice for the United States Army’s fleet of 2.5- and 5-ton vehicles for more than 50 years. Each axle offers optimum maneuverability and ground clearance. Additionally, Meritor’s bevel gear wheel-end reduction axles exceed the demanding requirements of the current Family of Medium Tactical Vehicles (FMTV).

MX-830-10 Front Military Axles
■ For weight ratings up to 23,000 lbs.
■ Ideal for use in heavily armored vehicles to improve payload capacity and mobility
■ 35-38-degree turning radius
■ Meritor WABCO EX-225 air disc brakes
■ 5.5-degree inclined kingpins

Air Strut
■ Maximum weight savings without performance compromise
■ Designed for vehicles that require flexible packaging
■ Offers both on-center and off-center air strut positions
■ Ideal application for light tactical vehicles that demand high mobility and maximum performance

Single And Tandem Military Axles
■ Meritor WABCO EX-225 air disc brakes
■ Stud-piloted wheel mounting for 10-stud x 11.25-inch or 10-stud x 335 mm B.C. wheels
■ Small bowl size for increased ground clearance
■ ABS-ready wheel ends with installed tooth wheel and sensor
■ Ductile cast-iron housing
■ Precision-forged differential gears

Single Air Spring
■ Designed specially for rear axle applications of 4x4 vehicles, with or without all-wheel steering, where turn angle is restricted
■ Significant weight savings over steel coil suspensions
■ Facilitates improved wheel articulation
Want To Beef Up Or Modify Another Suspension Platform To Suit Your Application?

The modular architecture of the ProTec HMIS family allows users to enhance the performance of a broad range of suspension platforms. Contact a Meritor representative at 866-668-7221 or visit www.meritordefense.com for a solution to your specific needs.

Bevel-Geared Wheel-End Assembly

Maximum performance in the lightest weight possible through use of multi-functional architecture, lightweight materials and field-proven engineered components result in both maximum performance and maximum weight savings.

- Design optimized for demanding, off-road military requirements
- Compact design with a longer half-shaft allows more suspension travel
- Configurations available with aluminum hub for lightweight
- Available in 335 mm or 11.25 in bolt circle
- Three- and four-spider 2:1 bevel reductions, or planetary 3.46:1 reductions available
- Incorporates field-proven seals, bearings and gears used in the U.S. Army’s Family of Medium Tactical Vehicles and Armored Security Vehicle programs

Suspension Height Control Module

This advanced, industry-leading feature allows the operator to control ride-height for air-spring independent suspension applications in heavily armored vehicles.

- Pre-programmed settings for operation on highway; mud, sand and snow; cross country; or transport
- Meets all JLTV requirements.
- Levels the vehicle while in operation, either manually or automatically, thus improving stability
- Measures and reports load at each corner

Differential Carrier Module

The compact “pot-style” carrier on this flexible differential carrier platform optimizes performance for advanced suspension platforms.

- Industry-leading weight savings
- “On-the-fly engagement at up to 45 mph with face clutch differential lock option
- Fast gear ratios to meet top speed and mobility requirements
- Optional parking brake mounted to front
- Traction options include limited slip or no-spin differentials
Corner Module

Modular suspension architecture allows for corner module configurations including control arms, springs and damper, wheel-end assembly and brake in one concise package.

- Configurations available with coil springs, air springs, air struts, or hydrostruts
- Can incorporate semi-active or full active damping systems
- Custom designed to meet all vehicle performance specifications

 ALSO ENSURING MISSION SUCCESS FROM MERITOR DEFENSE

Military Grade Transfer Case

Meritor® military specification transfer cases provide optimum vehicle mobility and excellent durability, and can be used in any variation of wheeled and combat vehicles, and heavily armored personnel carriers, from 4x4 to 6x6 or 8x8 configurations.

Meritor transfer cases are also prominently featured in the U.S. Army's Family of Medium Tactical Vehicles, several MRAP applications, the Joint Light Tactical Vehicle and the Marine Personnel Carrier Technology Demonstrator.

- Aluminum housings utilized for lightest weight
- Wide selection of yokes and flanges, including KV, half-round and full-round
- High capacity oil pump provides ample lubrication to bearings and gears, even at low operating speeds
- Configurable with proportioning differentials and full locking features
- Power Take Offs optional
- Single speed and two speed designs available

Meritor Xtended Lube MXL™ Drivelines

Meritor universal joints and driveline components have long been industry leaders in trouble-free operations. Now, these technologies have merged and the results are longer service life, extended maintenance intervals, low life-cycle costs — the reasons MXL Drivelines are becoming the new standard for linehaul fleets.

- Lubrication intervals for both U-joints and slip section are extended to 100,000 miles* for linehaul applications, maximizing uptime and reducing maintenance costs
- Advanced sealing-slip section ensures lubrication is protected from contaminants and prevents water intrusion
- Maximum-life U-Joints merge RN series U-joint design with RPL premium sealing technology

* Inspection intervals may differ. See Meritor Driveline manual for details.