

ARMATEC SURVIVABILITY CORP.

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MINE PROTECTION SEATING SYSTEMS (MPSS)

HOLISTIC SURVIVABILITY / / /

MINE PROTECTED SEATING SYSTEMS (MPSS)

The Armatec MPSS is the most intimate interface to the human body and therefore provides the most significant impact on increasing survivability of the occupant in a threat situation.

Armatec's range of roof-mounted seating systems provides protection to personnel mounted in vehicles against the effects of a variety of threats:

- 1. IEDs
- 2. Landmines (blast and fragmentation)
- 3. Ballistic projectiles
- 4. Shaped charges
- 5. Front, side and rear automotive crash
- 6. Vehicle roll overs

The Armatec MPSS is designed to protect to specified STANAG levels according to host vehicle characteristics and threat requirements. In an overmatch situation, the MPSS incorporates features that transition to mitigation protection.

No matter what the situation, the soldier is protected with the Armatec MPSS.







→ AC12000 - DRIVER/COMMANDER MPSS

ARMATEC'S 12000 SERIES MPSS is a bolt on seat system which integrates into the existing Driver/Commander vehicle stations. The seating system can provide a protected solution with little to no impact on HFE weight and space claim.

The seat back folds down to allow for under armour ingress & egress and the base/back are ballistically protected. The seating system has been tailored for 5th percentile female to 95th percentile male. The system weight for the 12000 series seating system is 33kg (68lbs).

The Driver and Commander Mine Protection Seating System protect the crew from various threats and automotive accidents as follows:

- 1. Attenuation of loads that are transferred into the occupant
- 2. FMVSS 207, 210 and 302 Compliant
- 3. Restrain the occupant from the subsequent vehicle rollover/accident through the use of a 5-strap harness system



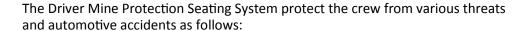




AC49400/AC49600 - DRIVER/COMMANDER

DRIVER / COMMANDER MPSS

The system weight for Driver/Commander seating system is 42kg to 55kg (92lbs to 121lbs). A foot rest is provided for the commander seating system. The seat back folds down to allow for under armour ingress and egress. The seating system has been tailored for 5th percentile female to 95th percentile male.



- 1. Attenuation of loads that are transferred into the occupant
- 2. Isolate load inputs from the vehicle (decoupled mounting specific to vehicle platform)
- 3. FMVSS 207, 210 and 302 Compliant
- 4. Restrain the occupant from the subsequent vehicle rollover/accident through the use of a 5-strap harness system
- 5. Vertical height & Fwd/Aft Adjustment

This seat variant is adaptable with Armatec Survivability's new Assisted Rescue System (ARS)





AC19600 - COMMANDER MPSS

ARMATEC'S AC19600 COMMANDER MPSS provides a roof mounted installation. The AC 19600 Commander mine protection seating system weight is 30kg to 45kg (64lbs to 98lbs). The seating system has been tailored for 5th percentile female to 95th percentile male. A foot rest is provided for the commander seating system.

The Commander Mine Protection Seating System protect the crew from various threats and automotive accidents as follows:

- 1. Attenuation of loads that are transferred into the occupant vertical & horizontal
- 2. Isolate load inputs from the vehicle (decoupled mounting specific to vehicle platform)
- 3. FMVSS 207, 210 and 302 Compliant
- 4. Restrain the occupant from the subsequent vehicle rollover/accident through the use of a 5-strap harness system
- 5. Optional foot rest available









AC26900 - DRIVER/COMMANDER MPSS

ARMATEC'S 26900 SERIES MPSS provides a roof mounted installation. The system weight for Driver/Commander seating system is 43kg (98lbs). The seat has an electronic capability of adjusting the seat height within the vehicle.

The Driver and Commander Mine Protection Seating System protect the crew from various threats and automotive accidents as follows:

- 1. Attenuation of loads that are transferred into the occupant
- 2. Isolate load inputs from the vehicle (decupled mounting specific to vehicle platform)
- 3. FMVSS 207, 210 and 302 Compliant
- 4. Restrain the occupant from the subsequent vehicle rollover/accident through the use of a 5-strap harness system
- 5. Electronic Seat height adjustment







AC19800 - TURRET MPSS

ARMATEC'S 19800 TURRET MPSS provides a seat base that folds up to allow higher standing support and egress, as well optional base/back ballistic protection. The seating system has been tailored for 5th percentile female to 95th percentile male. The system weight for turret seating system is 35kg (77bs).

The Turret Mine Protection Seating System protect the crew from various threats and automotive accidents as follows:

- 1. Attenuation of loads that are transferred into the occupant
- 2. Isolate load inputs from the vehicle (decoupled mounting specific to vehicle platform)
- 3. FMVSS 207, 210 and 302 Compliant
- 4. Restrain the occupant from the subsequent vehicle rollover/accident through the use of a 5-strap harness system
- 5. Ballistic protection options











→ AC16000 - TROOP MPSS

ARMATEC'S AC16000 SERIES TROOP MPSS provides a roof mounted installation. The troops seating system base folds up to allow for additional stowage space and the seatback folds down allowing access behind the seating system and as medical stretcher beds. AC16000 Series MPSS has been successfully tested to STANAG 4a/4b levels The system weight for troop seating system—27kg (60lbs).

The Troop Mine Protection Seating System protect the crew from various threats and automotive accidents as follows:

- 1. Attenuation of loads that are transferred into the occupant
- 2. Isolate load inputs from the vehicle (decoupled mounting specific to vehicle platform)
- 3. FMVSS 207, 210 and 302 Compliant
- 4. Restrain the occupant from the subsequent vehicle rollover/accident through the use of a 5-strap harness system
- 5. Foot rest provided for troop seating system
- 6. Provides ballistic protection option
- 7. Wrap around headrest for Rollover protection







AC16600 - TROOP MPSS

<u>ARMATEC'S AC16600 TROOP MPSS</u> provides a roof mounted installation. The troop seating system is designed as a bucket seat, offering better ergonomics for the soldier while the vehicle is in motion. The system weight for troop seating system is 50kg (110lbs).

The Troop Mine Protection Seating System protect the crew from various threats and automotive accidents as follows:

- 1. Isolate load inputs from the vehicle (decoupled mounting specific to vehicle platform)
- 2. FMVSS 207, 210 and 302 Compliant
- 3. Restrain the occupant from the subsequent vehicle rollover/accident through the use of a 5-strap harness system
- 4. Bucket style seating system, quick disconnect for removability/access

MPSS FACTS:

The Armatec MPSS seats are equipped with a mechanical energy attenuation device and load limiter that controls the loading delivered to the occupant. This device is customized to a broad range of loading scenarios of the specific threats and overall host vehicle mass. Armatec's MPSS provides the best ergonomic solution for vehicle occupants/ platforms. Seat cushions can be tailored around specific occupant Personal Protective Equipment.





ASSISTED RESCUE SYSTEM (ARS) -

<u>ARMATEC'S ASSISTED RESCUE SYSTEMS</u> intent is to quickly and safely extract casualties out of vehicles and provide maximum protection to mitigate potential injuries during the rescue phase and initiation of medical treatment.

PRODUCT BENEFITS

- 1. Integrated seat cushion assembly with back and base cushion. A seat belt system is integrated to form a load carrying lifting sling.
- 2. Back cushion reinforced for spinal support
- 3. Central quick release is installed on top of seat for release of the ARS from the seat belt anchor points.
- 4. Lifting handles attached for careful extraction of occupant through the narrow hatch openings.
- 5. Color marked lifting and disconnect areas.

DESIGN APPROACH

- 1. System is able to be retrofitted in the field. The ARS system can be added to ANY seat not just ASC Seating.
- 2. System is simplistic and safe in operation with minimum changes to vehicle or seat installation. No further impediment of occupant or more complex operation of seat system is present.
- 3. Designed around the latest standards of Canadian, Australian, American uniforms, load carrying vest, body armor and personal equipment.
- 4. No adverse effect on CMVSS and FMVSS requirements for seats, restraints, vehicle components.
- 5. System is Compliant to all FMVSS/CMVSS 209 & 210 Regulations.





