

Mackay Ballistic Track Shrouds

Mackay Consolidated Industries has successfully completed an Australian defence contract to develop and produce ballistic track shrouds for US designed M113 armoured personnel carriers.

These track shrouds are an integral part of the ballistic protection of the lower hull of the vehicle but are also important for the control of the dust plume generated by the vehicle. One key advantage of the Mackay track shroud is that it allows easier access for track maintenance and repair, providing greater safety for military personnel.

The ballistic component of the shroud was developed under a licensing agreement with the Defence Science and Technology Organisation (DSTO) while Mackay's overall shroud design was developed in close partnership with the Defence Material Organisation (DMO).

More than 160 ballistics shroud kits have been delivered for the M113 carrier in the first contract. This follows the successful development and production of a cost competitive track shroud for the Army's Leopard Tanks, establishing Mackay as experts in this field.

The Defence Military Organisation initially looked to local industry for cost effective replacements to overseas sourced track shrouds for the Leopard program.



The excellent relationship between the DMO, DSTO and Mackay resulted in the production of a track shroud that was better designed and less expensive than the imported alternative, and 16% lighter in weight.

Added benefits were in fuel savings, increased ballistic protection and ease of handling in the field.

DSTO's Maritime Platforms Division developed technology to bond the steel material within rubber-reinforced layers which was further improved by Mackay. The end result is a product that is both cost effective and one that offers an expected increase in ballistic protection.

The success of the Leopard Tank shroud led to the development of the Ballistics Shroud kits for the M113 Armoured Personnel Carrier. The locally produced kits contain the six shrouds, rails, clasps and all hardware needed for ease of installation. By using existing holes on the vehicle, no extra drilling or modifications are required.

With more than 85,000 M113 Armoured Personnel Carriers in service around the world, the company is showcasing these developments to potential defence customers globally, further enhancing the high-tech side of Australian industries and export sales potential.

PRODUCTS & SERVICES

- Armoured vehicle track links - both single and dual pin, design, manufacture and refurbishment.
- Armoured vehicle road wheels, design, manufacture and refurbishment.
- Track shrouds for Armoured vehicle.
- Anti-vibration/shock mounts for surface and sub-surface vessels.
- Hand fabrication of rubber products ie; gas sealing membranes for submarines, rubber fume/fluid ducts etc.
- Anechoic materials for sub-surface vessels.
- Missile and Silo components ie; conductive and high temperature seals, silo closures, shock mounts etc

CAPABILITIES

- Finite Element Analysis used in design concepts and validation of products
- Unigraphics CAD design drafting system.
- NATA certified laboratory
- Full range of rubber manufacturing processes.

QUALITY ASSURANCE

- ISO 9001, ISO1401
- QS9000

Excellence in Design