

# Missile and Silo Components

**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



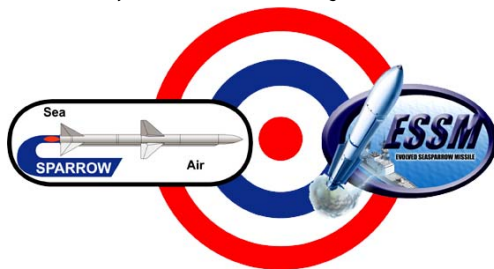
Mackay in early 1995 with the help of DSTO (Defence Science and Technology Organization) developed the closures that seal the top and bottom of the Vertical Launch System (VLS) silos used for the Evolved SeaSparrow Missile (ESSM). These composite construction closures are designed to carry out a number of functions during the firing of the ESSM.

Mackay now supplies these closures direct to United Defence LP for integration into their MK 41 VLS for the NATO consortium ESSM project, the consortium consisting of eleven navies.

Since the development of both the closures and the aeronautical skills required, Mackay has gone on to manufacture a number of internal components for both the Nulka decoy and the ESSM anti-missile missiles used by the US and Australian Navies.



All items are manufactured to strict aeronautical standards. All composite assemblies are assembled in clean rooms and monitored through their full process for quality and component traceability.



**Excellence by Design**