

Sub-surface vessels

Rubber components manufactured for Collins Class Submarines

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

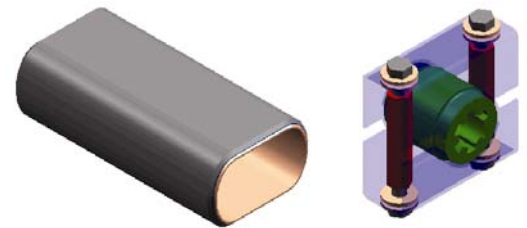
- Finite Element Analysis used in design concepts and validation of products
- Unigraphics CAD design drafting system.
- NATA certified laboratory
- Full range of rubber manufacturing processes.

QUALITY ASSURANCE

ISO 9001, ISO1401
QS9000

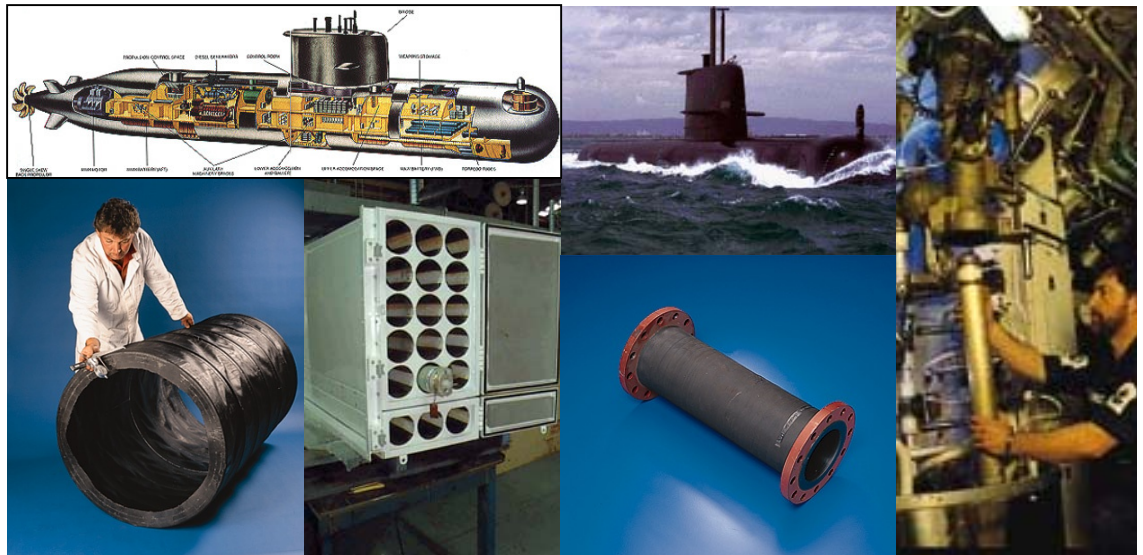
Mackay commenced manufacturing products for the defence industry in 1940 and is currently the major supplier of rubber components to both the Australian Submarine Corporation and the Australian Defence Forces where it successfully competes with international suppliers. Employing unique technology developed in conjunction with the Aeronautical and Maritime Research Laboratory, all Collins Class Submarines incorporate high precision rubber components designed and manufactured by Mackay -

- Anti-vibration platform mounts .
- Noise isolation pipe clamps .
- Noise attenuating water mufflers.
- Anechoic materials .
- Rubber hull and control surface fendering.
- Hand-built rubber products .
- High specification rubber sheeting .



Product development -

In most cases all rubber products with the Collins Class Submarine had to be developed by Mackay from basic information. Although challenging, this created the advantage of R&D improvements over the original products. The products offered by Mackay are sound proven engineering solutions and in most cases more cost effective than the European source



Excellence in Design