



TYPE APPROVAL CERTIFICATE

Certificate No:
TAE00000W1
Revision No:
1

This is to certify:

That the **Bulkhead/Deck Penetration**

with type designation(s)
Roxtec sealing system with multidiameter technology
G- series frames

Issued to

Roxtec International AB
Karlskrona, Sweden

is found to comply with
DNV GL rules for classification – Ships and offshore units

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV.
The penetration system is generally not to be used for penetrating boundaries of tanks.

Issued at **Høvik** on **2021-05-28**

for **DNV**

This Certificate is valid until **2026-01-30**.

DNV local station: **Malmö**

Approval Engineer: **Ivar Bull**

Marta Alonso Pontes
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

“Roxtec sealing system with multidiameter technology: G-series frames”

Consisting of Roxtec G-series steel frames (G, GO and GHM) in sizes 1-8 and combinations thereof, bolted or welded to a steel section. The G frame is filled with Roxtec (standard or EMC) halogen free RM modules.
Assembled with Roxtec wedge kit (standard or EMC).

Application/Limitation

Cable and pipes (steel, copper, bundles) penetrations or combination thereof approved for water- and gas tightness in steel bulkheads or decks, limited to a pressure of

- 4 bar water tightness (For bolted and/or openable installations with gasket, pressure is limited to 2 bar)
- 2,5 bar gas tightness (For bolted and/or openable installations with gasket, pressure is limited to 1 bar)

When used in High Speed and Light Crafts the penetrations are subject for approval in each case.

Each product shall be installed and used according to manufacturer's instructions.

DNVGL-CP-0165 Chapter 5.2 states that penetration systems are generally not to be used for penetrating boundaries of tanks.

Type Approval documentation

Tests carried out

Pressure tests with water and Helium according to Type Approval Programme 8-471.19-1 dated May 2001.

Marking of product

The product or packing is to be marked with name of manufacturer and type designation.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT shall be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE