EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB00008MR

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV AS under the authority of the Government of Norway.

This is to certify:

that the Penetrations through "A" class divisions: electric cable transits

with type designation(s)
Roxtec sealing system with multidiameter technology: TB-series (Steel divisions)

issued to
Roxtec International AB
Karlskrona, Sweden

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2023/1667,**
item No. MED/3.26a. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/1488

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2029-06-20**.

Issued at **Høvik** on **2024-06-21**

DNV local unit:
Denmark CMC

Approval Engineer:
Marcin Tobiasz

Notified Body
No.: **0575**

for **DNV AS**

Mydlak-Röder, Christine
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2023 dated August 21st, 2023.

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.
Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

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: TB-series (Steel divisions)”
Consisting of a steel sleeve welded into a steel division which is containing Roxtec rubber seals with two half circle metallic front fitting plates. These are locked into a groove in the sleeve and are fixed with four axial compression bolts. TB-sealing with multidiameter technology has peelable layers making the center adaptable to single cable.

Application/Limitation

Approved for use as a single or multiple cable penetration system in class A-0, A-15, A-30 and A-60 steel bulkheads and decks for approved ship cables.

Class A-0, A-15 and A-30 shall be insulated as A-60 and in addition the division is to be insulated at least 200 mm around the penetration.

Table 1: Approved cable penetration in A-60 steel bulkheads

Type	Size	Cable type	Max. cable diameter [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Penetration insulation
TB	65 - 105	Marine	47	90	7	Symmetric	Fully insulated (S1593516 Rev.A, No. 1)

Table 2: Approved cable penetration in A-60 steel decks

Type	Size	Cable type	Max. cable diameter [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Penetration insulation
TB	65 - 105	Marine	47	90	7	Symmetric	Fully insulated (S1593516 Rev.A, No. 2)

The insulation materials used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

Each product is to be supplied with its manual for installation and use.

Type Examination documentation

Test report No. RS-23/B-105/E dated 23 May 2023 from CTO, Gdansk, Poland
Test report No. RS-23/B-106/E dated 23 May 2023 from CTO, Gdansk, Poland
Test report No. RS-22/B-153/E dated 4 May 2022 from CTO, Gdansk, Poland

Drawing No. S1593516 Rev. A dated 14 August 2023 from maker.

Tests carried out

Tested according to IMO 2010 FTP Code part 3.

Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, fire-technical rating, MED Mark of Conformity and USCG approval number if applicable (see first page).

Additional application/information for watertightness/gastightness and vibration (Not part of the Marine Equipment Directive requirement)

Product description

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Application/Limitation

Approved for penetration in steel bulkheads or decks limited to a pressure of 11 bar watertightness (tested pressure 16.5 bar) and 2 bar gastightness (tested pressure 3 bar).

Penetration systems are generally not to be used for penetrating boundaries of tanks. When a penetration system is requested for penetrating tanks, an approval may be given on a case-by-case basis.

Each product is to be installed with its manual for installation and use.

Type Approval documentation

Tests carried out

Pressure tests with water and helium according to Class Programme DNV-CP-0165.