EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB0000877

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: H-series (Aluminium divisions)

Issued to
Roxtec International AB
Karlskrona, Sweden

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2022/1157,**
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 **2028-03-02**.

Issued at **Høvik** on **2023-03-03**

DNV local unit:
Sweden CMC

Approval Engineer:
Kristin Grønnæss Hovden

Notified Body
No.: **0575**

for **DNV AS**

Sverre Olav Bergli
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 1/2019 dated February 22nd, 2019.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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: H-series (Aluminium divisions),
is a single or multicable penetration system consisting of an aluminium sleeve welded to an aluminium division and filled with a H seal of size 31 to 150.

For more details, see drawing listed under Type Examination documentation below.

Application/Limitation

Approved for use as single or multicable penetration system in class A-60 aluminium bulkheads or decks for approved ship cables according to tables below. Other applications are subject to case-by-case approval.

Class 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 aluminium bulkhead

Type	Size	Max. cable diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation
H	31 - 150	50	35 - 65	4 - 7	Symmetric	S1583408; No. 1-2

Table 2: Approved cable penetration in A-60 aluminium deck

Type	Size	Max. cable diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation
H	31 - 150	50	35 - 65	4 - 7	Symmetric, Unexposed	S1583408; No. 3-4

The insulation material used has 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 maintenance.

Type Examination documentation

Test report No. RS-20/B-082/E dated 27 April 2020 from CTO, Gdansk, Poland.
Test report No. PGB10016A Rev.2 dated 3 June 2020 from DBI, Hvidovre, Denmark.
Test report No. PGB10076A Rev.1 dated 9 December 2020 from DBI, Hvidovre, Denmark.

Drawing No. S1583408 Rev. A dated 5 January 2023 from manufacturer.

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).

APPENDIX

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

Product description
Roxtec Sealing system: H-series (Aluminium divisions),
is a single or multicable penetration system consisting of an aluminium sleeve welded to an aluminium division and filled with a H seal of size 31 to 150.

Application/Limitation
Approved for penetration in aluminium bulkheads or decks limited to a pressure of 4.00 bar watertightness and 2.67 bar gastightness.

Penetration systems are not to be used for penetrating boundaries of tanks.

Type Approval documentation
Test report No. N141XE2A Rev.02 dated 19 December 2020 from DNV GL Malmö, Sweden.

Tests carried out
Pressure tested according to Class Programme DNV-CP-0165.