DNV·GL

Certificate No:
MEDB00003M3

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

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 GL 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: G-series (steel)

Issued to
Roxtec International AB
Karlskrona, Sweden

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773,**
item No. MED/3.26a. SOLAS 74 as amended, Regulation II-2/9 and IMO 2010 FTP Code

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

This Certificate is valid until **2023-07-01**.

Issued at **Høvik** on **2018-07-02**

DNV GL local station:
Malmö

Approval Engineer:
Helge Bjørnarå

Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
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.

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 GL 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

NORWEGIAN ACCREDITATION PROD 019

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Product description
"Roxtec sealing system with multidiameter technology: G-series (steel)"
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 Ex, EMC of type PE, ES and BG, BGB) halogen free RM modules. Assembled with Roxtec wedge kit or Roxtec EMC wedge kit.

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.

Deck penetrations are to be partially insulated while bulkhead penetrations are to be fully insulated. For more details, please see insulation drawing specified in the Type Examination documentation. For fire class A-0, A-15 and A-30, the sleeve and cables are to be insulated as for class A-60.

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. PGA10024 dated 21 December 2011 from DBI, Hvidovre, Denmark (RM BG and BGB).
Test Report No. PGA10025 dated 22 December 2011 DBI, Hvidovre, Denmark (RM BG and BGB).

Test Report No. 6P10022 dated 2017-03-07 from SP, Borås, Sweden.
Test Report No. RS-17/B-396/E dated 2017-10-30 from CTO S.A., Gdansk, Poland.

Drawing No. S1528176, Rev. B, dated 2 July 2018 from Roxtec International AB.

Tests carried out
Tested according to IMO 2010 FTP Code Part 3; IMO FTP Code Part 3 (IMO Res.A.754(18)) and in compliance with IMO 2010 FTP Code Ch. 8.

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/or USCG approval number (see page 1).

Job Id: **344.1-000153-78**
Certificate No: **MEDB00003M3**

Additional application/information for Watertightness/gastightness (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 4.0 bar watertightness and 2.7 bar gastightness.

For bolted versions with gasket and self tapping screws, the pressure is limited to 3.3 bar watertightness and 1.7 bar gastightness.

The penetration system is generally not to be used for penetrating boundaries of tanks.

Type Approval documentation

Test reports Nos.:

- MLM 020106 dated 19 December 2001,
- MLM 020133 dated 26 February 2002,
- MLM 020401 dated 25 March 2002,

from DNV Malmö.

Tests carried out

Pressure tests with water and Helium according to Class Programme DNVGL-CP-0165.