

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00000NV
Revision No:
2

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 the Kingdom of Norway.

This is to certify:

That the Penetrations through "A" class divisions: pipe, duct, trunk, etc penetrations

with type designation(s)

Roxtec sealing system: Roxtec SPM seal series (steel divisions)

Issued to

Roxtec International AB
KARLSKRONA, Sweden

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2015/559,**

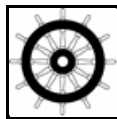
Annex A.1, item No. A.1/3.26a and Annex B, Module B in the Directive; SOLAS 74 as amended, Regulation II-2/9, IMO MSC/Circ.1276 and IMO 2010 FTP Code

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

This Certificate is valid until **2021-06-09.**

Issued at **Høvik** on **2017-03-15**

DNV GL local station:
Malmö



for **DNV GL AS**

Approval Engineer:
Piotr Orzechowski

Notified Body
No.: **0575**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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



Job Id: **344.1-005182-3**
Certificate No: **MEDB00000NV**
Revision No: **2**

Product description

"Roxtec sealing system: Roxtec SPM seal series (steel divisions)"
Consisting of Roxtec SPM rubber seal in size 39-279 attached through expansion to steel sections.

Application/Limitation

Approved for use as a single pipe penetration system in class A-0, A-15, A-30 and A-60 steel bulkheads and decks as follows:

Roxtec SPM seal series:

- a) Steel pipes
With diameter 8 – 222 mm for bulkhead and deck
- b) Copper pipes
With diameter 8 – 222 mm for bulkhead and deck

Other applications are subject to case-by-case approval.

For A-0, A-15 and A-30 applications, the penetration shall be insulated as for A-60 and the division is to be fitted with A-60 insulation for a minimum distance of 200 mm around the penetration.
For detail information about insulation please see drawings specified in the Type Examination Documentation.

All seals shall be installed in accordance with Roxtec's SPM seal Installation Instructions, including aperture dimensions and tolerances, tightening torque, etc.

Penetrations through structural divisions should not impair the structural strength of the division.
Special consideration should be given to bulkheads and decks with high stress locations (IMO MSC.1/Circ.1488).

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

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

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

Type Examination documentation

Test Report Nos.:

- 5P03451 dated 3 November 2015 (SPM)
 - 5P08346 dated 21 December 2015 (SPM)
 - 5P03457 dated 12 November 2015 (SPM)
 - 5P08343 dated 21 December 2015 (SPM)
 - 5P08395 dated 17 March 2016 (SPM)
 - 6P05989 dated 24 October 2016 (SPM)
 - 6P05990 dated 16 November 2016 (SPM)
- all from SP Technical Research Institute of Sweden.

Test report PGA1087A dated 13 December 2016 (SPM) from "DBI" Danish Institute of Fire and Security Technology.

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SPM Drawing Nos.:

- S1518385 Rev. A (Steel pipes for A-60, A-30, A-15 Class bulkhead)
 - S1518386 Rev. A (Copper pipes for A-60, A-30, A-15 Class bulkhead)
 - S1518359 Rev. A (Steel pipes for A-60, A-30, A-15 Class deck)
 - S1518384 Rev. A (Copper pipes for A-60, A-30, A-15 Class deck)
 - S1518398 Rev. A (Steel pipes for A-0 Class bulkhead)
 - S1518399 Rev. A (Copper pipes for A-0 Class bulkhead)
 - S1518392 Rev. A (Steel pipes for A-0 Class deck)
 - S1518400 Rev. A (Copper pipes for A-0 Class deck)
- all dated 22 December 2016 from Roxtec.

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 of manufacturer, type designation, fire-technical rating, MED Mark of Conformity and USCG approval number if applicable.

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

Product description

"Roxtec sealing system: Roxtec SPM seal series"

Consisting of Roxtec SPM rubber seal in size 39-279 attached through expansion to steel sections.

Application/Limitation

Approved for penetration in steel bulkheads or decks limited to a pressure of 1 bar watertightness and 0.67 bar gastightness.

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

Type Approval documentation

Pressure testing No. N1417RRN dated 29 January 2016 and N1419WS4 dated 22 June 2016.

Tests carried out

Tested according to Class Programme DNVGL-CP-0165 Chapter 4, February 2016.