



TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MERB0000368
Revision No:
0

This Certificate is issued by DNV UK Limited based on authorisation of the Maritime & Coast Guard Agency (MCA) as an UK Approved Body to undertake conformity assessments on marine equipment in accordance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2016 as amended.

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 (Aluminium divisions)

Issued to

Roxtec International AB
Karlskrona, Sweden

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

Regulation **MSN 1874 Amendment 7,**

item No. UK/3.26b. SOLAS 74 as amended, Regulation II-2/9, IMO MSC.1/Circ.1276, 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 **2027-12-19.**

Issued at **London** on **2023-03-30**

DNV local unit:
Sweden CMC



for **DNV UK Ltd.**

Approval Engineer:
Karolina Kusmider

Approved Body No.: **0097**

Christine Mydlak-Röder
MER Service Responsible



**Maritime &
Coastguard
Agency**

UK Approved Body Authorised
by the MCA

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-control phase module (D, E or F) of Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an approved body. The product liability rests with the manufacturer or his representative in accordance with the Merchant Shipping (Marine Equipment) Regulations 2016.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV UK Ltd. of any changes to the approved equipment. 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. This certificate remains valid unless suspended, withdrawn, re-called, or cancelled.

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: Roxtec SPM seal series (Aluminium divisions)”
 consisting of Roxtec SPM rubber seals in size 39-279 attached to expansion to Aluminium sections.

Application/Limitation

Approved for use as a single pipe penetration system in class A-60 Aluminium bulkheads and decks as according to the tables below. 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.

Table 1: Approved pipe penetration in A-60 aluminium bulkhead

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Seal position	Insulation drawing
SPM	39 – 279	Steel	8 – 222	None	NA	Either side	S1581274; No. 1-4
SPM	39 – 157	Copper	8 – 110	None	NA	Either side	S1581303; No. 1-4

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

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Seal position	Insulation drawing
SPM	39 – 279	Steel	8 – 222	None	NA	Either side	S1581308; No. 1-4
SPM	39 – 157	Copper	8 – 110	None	NA	Either side	S1581082; No. 1-2

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 UK Marine Equipment Regulations and bear the UK Mark of Conformity.

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

Type Examination documentation

Test report No. RS-17/B-209/E dated 2 June 2017 from CTO, Gdansk, Poland.
 Test report No. RS-17/B-210/E dated 2 June 2017 from CTO, Gdansk, Poland.
 Test report No. RS-18/B-179/E dated 25 June 2018 from CTO, Gdansk, Poland.
 Test report No. RS-18/B-180/E dated 25 June 2018 from CTO, Gdansk, Poland.
 Test report No. PGA11370A dated 20 February 2019 from DBI, Hvidovre, Denmark.
 Test report No. PGA11371A dated 20 February 2019 from DBI, Hvidovre, Denmark.

Drawing No. S1581274 Rev. C dated 7 July 2022 from maker.
 Drawing No. S1581303 Rev. C dated 7 July 2022 from maker.
 Drawing No. S1581308 Rev. B dated 7 July 2022 from maker.
 Drawing No. S1581082 Rev. C dated 7 July 2022 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, UK Mark of Conformity (see first page).

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

Product description

“Roxtec sealing system: Roxtec SPM seal series (Aluminium divisions)”
consisting of Roxtec SPM rubber seals in size 39-279 attached to expansion to Aluminium sections.

Application/Limitation

Approved for penetration in aluminium bulkheads or decks for steel and copper pipes 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

Survey Report no. N1419WS4 dated 22 June 2016 from DNV GL Malmö.
Survey Report no. N141805A dated 20 December 2016 from DNV GL Malmö.

Tests carried out

Tested according to Class Programme DNV-CP-0165 Chapter 4, September 2021.