



TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MERB00000NV
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 / Roxtec SPM Blind seal series (steel divisions)

Issued to

Roxtec International AB
Karlskrona, Sweden

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

Regulation **MSN 1874 Amendment 6,**

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 **2025-10-01**.

Issued at **London** on **2022-11-30**

DNV local unit:
Sweden CMC



for **DNV UK Ltd.**

Approval Engineer:
Roland Priebe

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 This certificate remains valid unless suspended, withdrawn, re-called, or cancelled.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 / Roxtec SPM Blind seal series (steel divisions)”,
 Consisting of Roxtec SPM rubber seal in size 39 to 279 attached through expansion to steel sections and Roxtec SPM Blind rubber seal in sizes 39/0 to 92/0 attached through expansion to steel section.

Application/Limitation

Approved for use as a single pipe penetration system in A-class steel divisions according to below tables. Other applications are subject to case-by case approval.

For 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.

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

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Seal position	Sleeve insulation
SPM	39 – 279	Steel	8 - 222	None	NA	Either side	S1518385 Rev. B
SPM	39 – 279	Copper	8 - 222	None	NA	Either side	S1518386 Rev. A
SPM Blind	39/0 – 92/0	NA	NA	None	NA	Either side	S1553706 Rev. A

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

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Seal position	Seal Insulation
SPM	39 – 279	Steel	8 - 222	None	NA	Either side	S1518359 Rev. A
SPM	39 – 279	Copper	8 - 222	None	NA	Either side	S1518384 Rev. A
SPM Blind	39/0 – 92/0	NA	NA	None	NA	Either side	S1553706 Rev. A

Table 3: Approved pipe penetration in A-0 steel bulkhead

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Seal position	Sleeve Insulation
SPM	39 – 279	Steel	8 - 222	None	NA	Either side	S1518398 Rev. B
SPM	39 – 279	Copper	8 - 222	None	NA	Either side	S1518399 Rev. A
SPM Blind	39/0 – 92/0	NA	NA	None	NA	Either side	S1553712 Rev. A

Table 4: Approved pipe penetration in A-0 steel deck

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Seal position	Sleeve Insulation
SPM	39 – 279	Steel	8 - 222	None	NA	Either side	S1553744 Rev. A
SPM	39 – 279	Copper	8 - 222	None	NA	Either side	S1518400 Rev. A
SPM Blind	39/0 – 92/0	NA	NA	None	NA	Either side	S1553712 Rev. A

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 Regulation 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. 5P03451 dated 3 November 2015 from SP, Borås, Sweden.
Test Report No. 5P03457 dated 12 November 2015 from SP, Borås, Sweden.
Test Report No. 5P08343 dated 21 December 2015 from SP, Borås, Sweden.
Test Report No. 5P08346 dated 21 December 2015 from SP, Borås, Sweden.
Test Report No. 5P08395 dated 17 March 2016 from SP, Borås, Sweden.
Test Report No. 6P05989 dated 24 October 2016 from SP, Borås, Sweden.
Test Report No. 6P05990 dated 16 November 2016 from SP, Borås, Sweden.
Test Report No. PGA1087A dated 13 December 2016 from DBI, Hvidovre, Denmark.
Test Report No. RS-17/B-177/E dated 6 May 2017 from CTO, Gdansk, Poland.
Test Report No. RS-18/B-022/E dated 29 January 2018 from CTO, Gdansk, Poland.
Test Report No. RS-18/B-023/E dated 29 January 2018 from CTO, Gdansk, Poland.
Test Report No. RS-18/B-181/E dated 7 May 2018 from CTO, Gdansk, Poland.
Test Report No. PGA11302A dated 16 January 2019 from DBI, Hvidovre, Denmark.

Drawing No. S1518359 Rev. A dated 22 December 2016 from maker.
Drawing No. S1518384 Rev. A dated 22 December 2016 from maker.
Drawing No. S1518385 Rev. B dated 28 September 2020 from maker.
Drawing No. S1518386 Rev. A dated 22 December 2016 from maker.
Drawing No. S1518398 Rev. B dated 28 September 2020 from maker.
Drawing No. S1518399 Rev. A dated 22 December 2016 from maker.
Drawing No. S1518400 Rev. A dated 22 December 2016 from maker.
Drawing No. S1553706 Rev. A dated 28 September 2020 from maker.
Drawing No. S1553712 Rev. A dated 28 September 2020 from maker.
Drawing No. S1553744 Rev. A dated 28 September 2020 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 and the Mark of Conformity (see page 1).

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

Product description

"Roxtec sealing system: Roxtec SPM seal series / Roxtec SPM Blind seal series (steel divisions)",
Consisting of Roxtec SPM rubber seal in size 39 to 279 attached through expansion to steel sections and Roxtec SPM
Blind rubber seal in sizes 39/0 to 92/0 attached through expansion to steel section.

Application/Limitation

SPM 39 – 279:

Approved for penetration in steel bulkheads or decks limited to a pressure of 1.00 bar watertightness and 0.67 bar
gastightness.

SPM Blind 39/0 – 92/0:

Approved for penetration in steel bulkheads or decks limited to a pressure of 1.00 bar watertightness and 0.67 bar
gastightness.

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

Type Approval documentation

Test Report No. N1417RRN dated 29 January 2016 from DNV GL Malmö.

Test Report No. N1419WS4 dated 22 June 2016 from DNV GL Malmö.

Test Report No. N14805C dated 22 November 2017 from DNV GL Malmö.

Tests carried out

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