



TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MERB00006JA
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 with multidiameter technology: S-series (steel)

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 **2023-10-18.**

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

DNV local unit:
Sweden CMC

Approval Engineer:
Roland Priebe



Approved Body No.: **0097**

for **DNV UK Ltd.**

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 This certificate remains valid unless suspended, withdrawn, re-called, or cancelled.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 with multidiameter technology: S-series (steel)”
 consisting of Roxtec S-series steel frames (S, SO, SF, SFO, SFOHK, SR, SK, SRC r20, SRC r40 and SBTB) in sizes 1-8 and combinations thereof, welded or bolted to a steel section. The S frame is filled with Roxtec (standard, Ex or EMC) halogen free RM modules. Assembled with Roxtec wedge kit (standard, Ex or EMC).

Application/Limitation

Approved for use as a single or multiple pipe penetration system in class A-60 steel divisions according to below tables. 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.

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

Size	Pipe material	Pipe diameter (OD) [mm]	Min. frame length [mm]	Frame thickness [mm]	Frame position	Frame insulation drawing no.
1 – 8	Steel	6 – 53	60	10	Any	S1553237 Rev. A S1502599 Rev. C
1 – 8	Copper	10 - 54	60	10	Any	S1553238 Rev. A S1502599 Rev. C
1 – 8	Bundle (Steel)	16 – 50	60	10	Any	S1553239 Rev. A S1502599 Rev. C
1 – 8	Bundle (Copper)	20	60	10	Any	S1553239 Rev. A S1502599 Rev. C

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

Size	Pipe material	Pipe diameter (OD) [mm]	Min. frame length [mm]	Frame thickness [mm]	Frame position	Frame insulation drawing no.
1 – 8	Steel	6 – 50	60	10	Any	S1553237 Rev. A S1502062 Rev. B
1 – 8	Copper	10 – 54	60	10	Any	S1553238 Rev. A S1502062 Rev. B
1 – 8	Bundle (Steel)	16 – 52	60	10	Any	S1553239 Rev. A S1502062 Rev. B
1 – 8	Bundle (CuNi)	20	60	10	Any	S1553239 Rev. A S1502062 Rev. B

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 use.

Type Examination documentation

Test Report No. P602999 dated 23 January 2007 from SP, Borås, Sweden.
 Test Report No. P603000 dated 23 January 2007 from SP, Borås, Sweden.
 Test Report No. RS-17/B-395/E dated 30 October 2017 from CTO, Gdansk, Poland.
 Test Report No. RS-18/B-485/E dated 10 December 2018 from CTO, Gdansk, Poland.

Drawing No. S1553237 Rev. A dated 6 March 2020 from maker.
 Drawing No. S1553238 Rev. A dated 6 March 2020 from maker.
 Drawing No. S1553239 Rev. A dated 6 March 2020 from maker.
 Drawing No. S1502599 Rev. C dated 10 March 2020 from maker.
 Drawing No. S1502062 Rev. B dated 10 March 2020 from maker.

Tests carried out

Tested according to IMO FTPC Part 3 and in compliance with IMO 2010 FTP Code Ch. 8, and in accordance with 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 first page).

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

Product description

“Roxtec sealing system with multidiameter technology: S-series (steel)”
consisting of Roxtec S-series steel frames (S, SO, SF, SFO, SR, SK, SRC r20, SRC r40 and SBTB) in sizes 1-8 and combinations thereof, welded or bolted to a steel section. The S frame is filled with Roxtec (standard, Ex or EMC) halogen free RM modules. Assembled with Roxtec wedge kit (standard, Ex or EMC).

Application/Limitation

Approved for penetration in steel bulkheads or decks limited to a pressure of 4.00 bar watertightness and 2.67 bar gastightness for steel and copper pipes.

Approved for penetration in steel bulkheads or decks limited to a pressure of 4.00 bar watertightness and 2.00 bar gastightness for bundle pipes.

For bolted versions with gasket and self-tapping screws, the pressure is limited to 3.33 bar watertightness and 1.67 bar gastightness.

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

Type Approval documentation

Test Report No. MLM 020133 dated 26 February 2002 from DNV Malmö.
Test Report No. MLM 020400 dated 25 March 2002 from DNV Malmö.
Test Report No. MLM 020401 dated 25 March 2002 from DNV Malmö.
Test Report No. MLM 050410 dated 20 May 2005 from DNV Malmö.
Test Report No. MLM 060561 dated 1 December 2006 from DNV Malmö.

Tests carried out

Pressure tests with water and Helium according to DNV Type Approval Programme 8.471.19-1.