TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MERB0000876
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: H-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 9,**
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 **2028-03-02**.

Issued at **London** on **2024-10-02**

for **DNV UK Ltd.**

DNV local unit:
Sweden CMC

Approval Engineer:
Helge Bjørnarå

Approved Body No.: **0097**

Christine Mydlak-Röder
MER Service Responsible

Maritime & Coastguard Agency
UK Approved Body Authorised by the MCA

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the approved body named on this certificate.
During the period of validity of this certificate the applicable regulations (international conventions and the relevant resolutions and circulars of the IMO) and testing standards may change, therefore the product conformity may need to be re-assessed by the Approved Body.
"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. In case limitations of use apply, these should be indicated in the Annex.

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: H-series (Aluminium divisions),
is a single or multiple pipe penetration system consisting of an aluminium sleeve welded to an aluminium division and filled with a H seal of size 31 to 150.

For more details, see drawing listed under Type Examination documentation below.

Application/Limitation

Approved for use as single or multiple pipe penetration system in class A-60 aluminium bulkheads or decks according to tables below. Other applications are subject to case-by-case approval.

Class A-15 and A-30 shall be insulated as A-60 and in addition the division is to be insulated at least 200 mm around the penetration.

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

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation
H	31	Steel	6 – 12	35	4	Symmetric	Fully insulated on both sides. (S1583426, 1)
H	31 – 150	Steel	6 – 30	35 – 65	4 – 7	Symmetric	Fully insulated on both sides + 450 mm along pipe on one side. (S1583426, 2)

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

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation
H	31	Steel	6 – 12	35	4	Symmetric, Unexposed	Fully insulated on underside. (S1583426, 3)
H	31 – 150	Steel	6 – 30	35 – 65	4 – 7	Symmetric, Unexposed	Fully insulated + 450 mm along pipe on the underside. (S1583426, 4)

The insulation material used has to be approved according to the Marine Equipment Regulation 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. PGB10016A Rev. 2 dated 3 June 2020 from DBI, Hvidovre, Denmark.
Test report No. PGB10031A Rev. 1 dated 9 July 2020 from DBI, Hvidovre, Denmark.
Test report No. PGB10076A Rev. 1 dated 9 December 2020 from DBI, Hvidovre, Denmark.

Drawing No. S1583426 Rev. A dated 4 January 2023 from manufacturer.

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 UK Mark of Conformity (see first page).

APPENDIX

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

Product description
Roxtec sealing system: H-series (Aluminium divisions),
is a single or multiple pipe penetration system consisting of an aluminium sleeve welded to an aluminium division and filled with a H seal of size 31 to 150.

Application/Limitation
Approved for penetration in aluminium bulkheads or decks limited to a pressure of 4.0 bar watertightness and 2.0 bar gastightness.

Penetration systems are not to be used for penetrating boundaries of tanks.

Type Approval documentation
Test report No. N142JK4Y dated 27 February 2023 from DNV, Sweden.

Tests carried out
Pressure tested according to Class Programme DNV-CP-0165.