



Marine & Offshore

Certificate number: 52630/A0 BV

File number: ACI 4010/030/006

Product code: 5301H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

ROXTEC International AB

KARLSKRONA - SWEDEN

for the type of product

PIPE PENETRATIONS IN FIRE DIVISIONS

Roxtec sealing system: Roxtec SPM seal series in Aluminium divisions

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships Part C Chapter 4

SOLAS 74, as amended, Regulations II-2/9.3.1

IMO Res MSC.307(88) (2010 FTP Code)

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 24 Sep 2023

For Bureau Veritas Marine & Offshore,

At BV GOTHENBURG, on 24 Sep 2018,

Magne MOLLER



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

"Roxtec SPM seal series for steel and copper pipes in Aluminium divisions"

The Roxtec SPM seal series consists of :

- circular rubber seal (in sizes 39-279 for steel pipe and in sizes 39-157 for copper pipes), and,
- circular front and rear steel fittings (bolted compression plates)

The Roxtec SPM seal is neither welded, neither bolted to the division (maintained through expansion to the division with the bolted compression plates).

The Roxtec SPM seal shall be fully insulated on both sides for bulkheads, and at least on underside for decks.

The pipe itself is insulated on both sides and/or one side with length and thickness as shown on Insulation drawings (see below table & §2).

Tests carried out with mineral wool Paroc Marine Wired Mat 100 (density 100 kg/m³).

Penetration type	Pipe material	Pipe Outer diameter	Seal size range	Insulation drawing
SPM seal series	Steel Pipe	8 to 222 mm (Deck & Blkhd)	39 to 279 (Deck & Blkhd)	Blkhd: S1529741, rev A, dated 2018-01-25 Deck: S1529743, rev A, dated 2018-01-25
SPM seal series	Copper Pipe	8 to 111 mm (Deck & Blkhd)	39 to 157 (Deck & Blkhd)	Blkhd: S1529742, rev A, dated 2018-01-25 Deck: S1529746, rev A, dated 2018-01-25

2. DOCUMENTS AND DRAWINGS :

- Insulation Drawings S1529741, rev A, S1529743, rev A, S1529742, rev A and S1529746, rev A, all dated 2018-01-25
- Information Drawing S1502970, rev D, dated 2015-04-10

3. TEST REPORTS :

3.1- Test report in Aluminium bulkhead : N° RS-17/B-209/E, dated June 2, 2017, from CTO, Poland.

3.2- Test report in Aluminium deck : N° RS-17/B-210/E, dated June 2, 2017, from CTO, Poland.

All test reports being as per IMO FTP Code 2010 Annex 1 Part 3.

4. APPLICATION / LIMITATION :

4.1- The fitting aboard to be the same as used for the test.

4.2- Not for use in tank boundaries.

4.3- Alternative non-combustible mineral wool : The fire tests were conducted with mineral wool type Paroc Marine Wired Mat 100 (density 100 kg/m³); any type approved A-class insulation of similar type giving at least an equivalent insulation performance can be used.

4.4- Approved for use as steel or copper pipe penetrations in A-0, A-15, A-30 and A-60 class aluminium divisions (with insulation arrangement as per § 1 & 2).

5. PRODUCTION SURVEY REQUIREMENTS :

5.1-The **SPM seals** are to be supplied by **Roxtec International AB** in compliance with the type described in this certificate.

5.2-This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3- **Roxtec International AB** has to make the necessary arrangements to have its office and production site(s) recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

6. MARKING OF PRODUCT:

The product or packing is to be marked with manufacturer name, type designation and fire technical rating.

7. OTHERS :

7.1- It is **Roxtec International AB**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2- Watertightness and Gastightness for SPM seals: Inspection report N° N1419WS4, dated June 21, 2016 and N° N141805A, dated December 20, 2016, both from DNV-GL:

- Tested watertightness : 1,5 bar during 60 min.
- Tested gastightness : 1 bar during 30 min.

*** END OF CERTIFICATE ***