



Marine & Offshore

Certificate number: 04558/G0 BV

File number: AC14000/032/004

Product code: 5302H

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***CABLE PENETRATIONS IN FIRE DIVISIONS**
Cable sealing system with multidiameter technology, S- Series**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)

IMO Res. MSC.61(67)-(FTP Code) with IMO Res MSC.307(88) (2010 FTP Code) article 8

IMO MSC/Circ.1120

*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: 30 Mar 2025****For Bureau Veritas Marine & Offshore,**

At BV GOTHENBURG, on 30 Mar 2020,

Magne MOLLER



This certificate is recognized by Transport Canada

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.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

A-Class Divisions "Cable sealing system with multidiameter technology, S-series"

Consisting of Roxtec S-series frames (S, SO, SF, SFO, SR, SK, SRC r20&r40 and BTB) in sizes 1-8 and combinations thereof, welded or bolted on to the steel divisions; filled with Roxtec (standard or Ex, EMC, PE, ES, BG, BGB) halogen free insert modules. Assembled with Roxtec Wedge kit or Roxtec EMC, Ex Wedge kit.

| | |
|--------------------------------------|---|
| Penetration designation | S-series frames 1x1 to 8+8x10 Welded and bolted |
| Type of division tested | Deck and Bulkhead |
| Depth of the penetration (mm) | 60 |
| External dimensions (mm) | 121 x 80 to 596 x 1315 |
| Classification | A0 to A-60 |

Maximum cable diameter: 98 mm

Tested fill based on transit opening area and the Roxtec Cable Sealing System. Maximum fill of a Roxtec transit is to install cable in every module installed in transit opening and minimum is to not install cable in any module in transit opening.

Additional insulation is to be provided as shown in the referred Manufacturer's drawings. Same insulation material and thickness to be used as used for the insulation of division penetrated. The insulation thickness is to be at least the length of protruding frame.

2. DOCUMENTS AND DRAWINGS:

As per the Manufacturer's drawings:

- "S-series frames cables - A-Class steel blkhd": N° S1040752 Rev.B dated 28/02/2020
- "S-series frames cables - A-Class steel deck": N° S1040753 Rev.B dated 28/02/2020
- "S frames metal clad cables - A-Class steel div": N° S1040754 Rev.A dated 21/10/2014
- "S-series frames with cables - A0-Class steel deck/bulkhead": N° S1506241 Rev.A dated 08/09/2015

3. TEST REPORTS:

| Laboratory | Test report | Date | Division | Fire rating | Test standard |
|--------------|------------------|-------------------------------------|----------|-------------|---|
| RIME, Japan | N° 09-344(E) | 11/12/2009 | Bulkhead | A-60 | IMO FTP Code Annex 1 Part 3 [test standard: IMO Resolution A.754(18)] |
| RIME, Japan | N° 09-346(E) | 11/12/2009 | Deck | A-60 | |
| DBI, Denmark | N° PGA10024 | 21/12/2011 | Bulkhead | A-60 | |
| DBI, Denmark | N° PGA10025 | 22/12/2011 | Deck | A-60 | |
| DBI, Denmark | N° PGA10651 | 03/07/2015 | Deck | A-0 | IMO 2010 FTP Code Annex 1 Part 3 |
| DBI, Denmark | N° PGA10652 | 03/07/2015 | Bulkhead | A-0 | |
| SP, Sweden | N° 6P02516 | 29/08/2016 | Bulkhead | A-60 | |
| DBI, Denmark | N° PGA10871Arev2 | 16/01/2018 test date: 31/10/2016 | Deck | A-60 | |

4. APPLICATION / LIMITATION:

4.1 - Approved for use as cable transits in A-0, A-15, A-30 and A-60 class steel divisions, with limitations contained in §1.

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

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The **A-Class Divisions "Cable sealing system with multidiameter technology, S-series"** 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 works 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 - This Certificate supersedes the Type Approval Certificate N° 04558/F3 BV issued on 22/09/2016 by the Society.

7.3 - Testing of the penetrations for gastightness and watertightness as per following inspection reports, witnessed by Third Party surveyor:

- report N° 020400 dated 25/03/2002, from DNV, Norway.
- report N° SKM-04-4088 dated 16/06/2004 from DNV, Norway.

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|---|---|
| Watertightness test (before fire exposure) | Gastightness test (before fire exposure) |
| 6 bar during 60 min | 4 bar during 30 min |

***** END OF CERTIFICATE *****