



Confirmation of Product Type Approval

Company Name: ROXTEC INTERNATIONAL AB

Address: ROMBVAGEN 2 SE 371 65 Sweden

Product: Cable, Deck and Bulkhead Penetration Sealings

Model(s): Roxtec GK Firestop Sealing Kit (GK FS SK) in steel divisions

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	20-1990057-PDA	02-JUN-2020	01-JUN-2025
Manufacturing Assessment (MA)	18-GB3595269	07-DEC-2018	08-JAN-2024
Product Quality Assurance (PQA)	NA	NA	NA

Tier

3

Intended Service

Roxtec "GK Firestop Sealing Kit" is intended for bundle cables or as a blank fire stop solution in Class A0 to A60 bulkheads and decks for ship or offshore applications.

Description

Roxtec "GK Firestop Sealing kit" consisting of a fiberglass cloth with built in heat activated intumescent material to be wrapped around cable bundles and fitted into circular or oval steel pipe sleeves. Folded back on each side with ends sealed off to create a cold smoke tight seal and secured by metal cable ties.

Sealing kits for round sleeves:

GK FS SK KIT 89 :

Pipe sleeve outer diameter (Min - Max) :84mm - 89mm

Pipe Sleeve Depth (Min- Max): 105mm - 205mm

GK FS SK KIT 127 :

Pipe sleeve outer diameter (Min - Max) :107mm - 127mm

Pipe Sleeve Depth (Min- Max): 105mm - 205mm

GK FS SK KIT 140 :

Pipe sleeve outer diameter (Min - Max) :120mm - 140mm

Pipe Sleeve Depth (Min- Max): 105mm - 205mm

GK FS SK KIT 168 :

Pipe sleeve outer diameter (Min - Max) :138mm - 168mm

Pipe Sleeve Depth (Min- Max): 105mm - 205mm

GK FS SK KIT 219 :

Pipe sleeve outer diameter (Min - Max) :179mm - 219mm

Pipe Sleeve Depth (Min- Max): 105mm - 205mm

GK FS SK KIT 244 :

Pipe sleeve outer diameter (Min - Max) :204mm - 244mm

Pipe Sleeve Depth (Min- Max): 105mm - 205mm

GK FS SK KIT 273 :

Pipe sleeve outer diameter (Min - Max) :233mm - 273mm

Pipe Sleeve Depth (Min- Max): 105mm - 205mm

Sealing kits for oval sleeves:

GK FS SK KIT 200X150:

Fits sleeve outer circumference (min-max): 531mm - 571mm

Pipe Sleeve Depth (Min- Max): 105mm - 205mm

GK FS SK KIT 200X170:

Fits sleeve outer circumference (min-max): 554mm - 594mm

Pipe Sleeve Depth (Min- Max): 105mm - 205mm

GK FS SK KIT 250X170:

Fits sleeve outer circumference (min-max): 654mm - 694mm

Pipe Sleeve Depth (Min- Max): 105mm - 205mm

Ratings

Fire rating: A0, A15, A30 and A60 for Bulkheads and Deck

Service Restrictions

1. Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

2. The penetration system is not designed or tested for applications where water tightness or gas tightness is required. Accordingly, product should not be installed in bulkheads and decks if water and gas tightness is a requirement.
3. Maximum cable diameter: 50mm
4. Maximum fill ratio: 68%
5. Cable/bundle are to be supported on both sides of the pipe sleeve
6. For use in fire classes A-15 and A-30, sleeves are to be insulated as per A-60 class requirements, and in addition the division is to be insulated at least 200 mm around the penetration
7. Insulation details for A60 Deck according drawings Roxtec No. S1554737
8. Insulation details for A0 Deck according drawings Roxtec No. S1554738
9. Insulation details for A60 Bulkhead according drawings Roxtec No. S1554739
10. Insulation details for A0 Bulkhead according drawings Roxtec No. S1554740
11. Installation shall be made according to installation instruction DOC-001835 revision E.
12. Not for use in tank boundaries.

Comments

- a) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- b) All seal type should be installed in accordance with the manufacturers instructions in accordance with ABS approved installation drawings.
- c) Insulation material is to be A60 approved type and properly installed in accordance with ABS approved drawings. This is to be verified to the satisfaction of the attending surveyor
- d) Fire rated bulkheads or decks for cable penetrations are to be examined as per 4-8-4/29.15 of ABS Marine Vessels Rules. This is to be verified to the satisfaction of the attending surveyor.
- e) The product or packing is to be marked with name of manufacturer, type designation and fire rating.
- f) Water & Gas tightness of the product has not been tested.

Notes, Drawings and Documentation

Test Reports A60 Fire Class:

Report No. RS-19/B-255/E, A-class Steel Bulkhead, CTO SA. Poland, Dated 20 August 2019, Revision: -, Pages: 42

Report No. RS/19/B-256/E, A-class Steel Deck, CTO SA. Poland, Dated 20 August 2019, Revision: -, Pages: 66

Report No. RS/19/B-225/E A-class Steel Deck, CTO SA. Poland. Dated 01 August 2019, Revision: -, Pages: 80

Report No. 8P07092 A-class steel deck, SP Technical Research Institute of Sweden, Dated 27 September 2019, Revision: -, Pages: 55

Report No. 8P07094 A-class steel Bulkhead, SP Technical Research Institute of Sweden, Dated 23 September 2019, Revision: -, Pages: 54

Report No. RS-19/B-355/E A-class Steel bulkhead, CTO SA. Poland, Dated 16 October 2019, Revision:

-, Pages: 64

Report No. DMT-DO-53-112 A-class Steel bulkhead, DMT GmbH Germany, Dated 22 May 2019, Revision: -, Pages: 51

Test Reports A0 Fire Class:

Report No. PGA11387 A-class steel bulkhead, DBI Danish Institute of Fire and Security Technology, Dated 08 April 2019, Revision: 0, Pages: 66

Report No. RS-20/B-081/E A-class Steel bulkhead, CTO SA. Poland, Dated 31 March 2019, Revision: -. Pages: 58

Report No. RS-19-B-423E A-class Steel Bulkhead, CTO SA. Poland., Dated 19 November 2019, Revision: -. Pages: 30

Report No. PGA11610A A-class steel deck, DBI Danish Institute of Fire and Security Technology, Dated 04 December 2019, Revision: 0, Pages: 76

Report No. 8P07092 A-class steel deck, SP Technical Research Institute of Sweden, Dated 27 September 2019, Revision: 0, Pages: 55

Report No. 8P07094 A-class steel Bulkhead, SP Technical Research Institute of Sweden, Dated 23 September 2019, Revision: 0, Pages: 54

Test Reports Cold Smoke:

Report No. 29092016-01, GK-AWL Cold Smoke Tightness Test, DMT GmbH Germany, Dated 29 June 2016, Revision: -, Pages: 11

Report No. 22032017-01, GK-AWL Cold Smoke Tightness Test, DMT GmbH Germany, Dated 23 March 2017, Revision: -, Pages: 5

Report No. 14122016-01, dated 2016-12-14. GK-AWL Cold Smoke Tightness Test, DMT GmbH Germany, Dated 14 December 2016, Revision: -, Pages: 5

Drawings:

Drawing No. DOC-001835, Installation instruction, Revision: E, Pages: 4

Drawing No. S1535797 Product drawing, S1535797 Product drawing, Revision: C, Pages: 1

Drawing No. S1554737 Certificate drawing, S1554737 Certificate drawing, Revision: A, Pages: 1

Drawing No. S1554738 Certificate drawing, S1554738 Certificate drawing, Revision: A, Pages: 1

Drawing No. S1554739 Certificate drawing, S1554739 Certificate drawing, Revision: A, Pages: 1

Drawing No. S1554740 Certificate drawing, S1554740 Certificate drawing, Revision: A, Pages: 1

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 01/Jun/2025 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time

of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

ABS Rules

2020 Rules for Conditions of Classification, 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

ABS Rules for Building and Classing Marine Vessels 2020: 4-8-4/21.13, 4-8-4/29.15,

ABS Rules for Building and Classing High Speed Craft 2020: 4-6-3/5.13

ABS Rules for Building and Classing Steel Vessels for Service on Rivers and Intracoastal Waterways 2020: 4-5-3/5.13

2020 Rules for Conditions of Classification - Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which cover the following:

ABS Rules for Building and Classing Mobile Offshore Units 2020: 4-3-3/5.13

ABS Rules for Building and Classing Facilities on Offshore Installations 2020: 3-8/9.13, 4-8/9.13

International Standards

SOLAS Ch. II-2, Reg. 9.3.1 (2014 consolidated edition)

2010 FTP Code (2012 Edition), Annex1, part 3 (IMO Resolution MSC.307 (88) adopted on 3 December 2010)

EU-MED Standards

NA

National Standards

NA

Government Standards

This PDA conforms to Transport of Canada requirements as per Transport Canada Policy Letter A8706-1 RDIMS #1961446

Other Standards

NA



A handwritten signature in blue ink, appearing to read 'James W. ...', is written over the printed text.

Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 02-Jun-2020 7:00

ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.