



Confirmation of Product Type Approval

Company Name: ROXTEC INTERNATIONAL AB

Address: ROMBVAGEN 2 LYCKEBY SE 371 65 Sweden

Product: Penetration Device for Bulkhead and Deck Firetight and Watertight Penetrations

Model(s): Roxtec Sleeve-it Fire penetration seal/ Roxtec Sleeve-it Waterproof penetration seal in Aluminium divisions.

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	23-2372499-PDA	03-MAY-2023	02-MAY-2028
Manufacturing Assessment (MA)	24-6227546	25-JAN-2024	08-JAN-2029
Product Quality Assurance (PQA)	NA	NA	NA

Tier

3 - Type Approved, unit certification not required

Intended Service

Single pipe penetration in Class A0, A15, A30 and A60 Aluminium bulkheads and decks for plastic pipes in Marine and Offshore Application. Penetrations of watertight and gastight aluminium decks up to specified pressure.

Description

Roxtec Sleeve-it Fire Penetration Seal consists of an intumescent strip material inserted in an openable stainless steel casing, equipped with an openable flange, intended for bolted or spot welded installation onto Aluminium divisions.

Roxtec Sleeve-it Waterproof penetration seal consists of an intumescent strip material inserted in a closed stainless steel casing, equipped with a closed flange with an EDPM rubber grommet, intended for fully welded installation onto Aluminium divisions.

Ratings

Fire Rating : A0, A15, A30 and A60 Bulkheads and Decks.

Waterproof penetration seal: Watertightness tested upto 1.5 bar and gas tightness tested upto 1 bar.

Service Restrictions

a) Maximum and Minimum tested plastic pipes (Poly Propylene & Poly Butylene Pipes) 225 mm and 16 mm.

b) Roxtec Sleeve-it Fire penetration: Outside diameter 16 to 225 mm for plastic pipes for bulkhead and decks, in size 16-225 mm.

- c) Roxtec Sleeve-it Waterproof penetration : Outside diameter 16 to 225 mm for plastic pipes for Deck, in size 16-225 mm.
- d) Maximum and Minimum size of Transits: Size 225 mm and Size 16 mm
- e) Not for use in tank boundaries and collision bulkhead.
- f) Transits are to be insulated as per the approved ABS drawings for all fire division ratings.
- g) For fire class A-0, A-15 and A-30, sleeves are to be insulated as for class A-60 and in addition the division is to be insulated at least 200 mm around the penetration.
- h) Maximum service temperature of the sealant is +70 Degree C.
- i) Unit Certification is not required for this product. If the manufacturer or purchaser's request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments

- a) All seal types should be installed as per manufacturer's instructions in accordance with ABS approved installation drawings.
- b) Insulation material is to be A-60 approved type and properly installed to the satisfaction of the Surveyors.
- c) Watertight bulkheads or decks are to be tested as per ABS Steel Vessels Rules 3-7-1/Table 1.
- d) When requested to be used in watertight bulkheads on passenger ships and Special Purpose Ships (SPS), the penetration system has to comply with the requirements given in SOLAS Ch.II-1 Reg. 13.2.3 Consolidated Edition 2020.
- e) This approval of penetrations passing through watertight bulkhead is not to be construed as a substitute for flag Administration's approval for the purpose of SOLAS Consolidated Edition 2020.
- f) The product or packing is to be marked with name of manufacturer, type designation and fire rating.
- g) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes, Drawings and Documentation

Document No. PGA10801A, Fire Test Report, A- Class Aluminium Bulkhead by DBI, Denmark dated 29 August 2016

Document No. PGA10802A, Fire Test Report, A- Class Deck by DBI, Denmark dated 29 August 2016

Document No. RS-17/B-209/E, Fire Test Report, A- Class Aluminium Bulkhead by Centrum Techniki Okretowej SA, Poland dated 02 June 2017

Document No. RS-17/B-210/E, Fire Test Report, A- Class Deck by Centrum Techniki Okretowej SA, Poland dated 02 June 2017

Document No. RS-17B-555E, Fire Test Report, A- Class Aluminium Bulkhead by Centrum Techniki Okretowej SA, Poland dated 15 January 2018

Document No. N141EX90, Survey Report, Witness of Pressure Testing- Roxtec Sleeve-It WT ALU, by DNV dated 30 June 2017.

Drawing No. S1507771, Revision: B, Sleeve-It FC ALU FC 16-225 ALU, Information Drawing

Drawing No. S1507772, Revision: D, Sleeve-It FC ALU FC 16-225 ALU, Information Drawing,

Drawing No. S1589161, ROXTEC SLEEVE-IT FC A-60 CLASS ALUMINIUM BULKHEAD/DECK, Revision:

A, Pages: 1

Drawing No. S1589166, ROXTEC SLEEV-IT WT A-60 CLASS ALUMINIUM DECK, Revision: A, Pages: 1

Document No. 151408 DOC-001370 A , Roxtec Sleev it Alu Fire penetration seal- Installation Instructions , Revision: A

Document No. 151406 DOC-001371 A, Roxtec Sleev it Alu Waterproof penetration seal- Installation Instructions , Revision: A

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 02/May/2028 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

The ABS Rules for Conditions of Classification, 2023 Marine Vessels 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2023 Rules for Building and Classing Marine Vessels: 4-6-3/7.11

The Rules for Conditions of Classification, Offshore Units and Structures, 2023 Mobile Offshore Units 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2023 Rules for Building and Classing Mobile Offshore Units: 4-2-2/ 7.7.4

International Standards

Regulation II-2/ 9.3.1 of SOLAS Consolidated Edition 2020

IMO Resolution MSC. 307 (88) - (2010 FTP Code - Edition 2012), Annex I: Part 3, Adopted 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 "Joseph W. White".

Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 12-Feb-2024 9:23

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.