



Confirmation of Product Type Approval

Company Name: ROXTEC INTERNATIONAL AB

Address: ROMBVAGEN 2 SE 371 65 Sweden

Product: Watertight and Fire Resistant Penetration Device

Model(s): Roxtec S Series Frames in aluminium divisions

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	20-LD1941096-PDA	27-JAN-2020	26-JAN-2025
Manufacturing Assessment (MA)	18-GB3595269	07-DEC-2018	08-JAN-2024
Product Quality Assurance (PQA)	NA	NA	NA

Tier

3 - Type Approved, unit certification not required

Intended Service

Multi and single cable and pipe penetrations in Class A0, A15, A30 and A60 aluminium bulkheads and decks. Penetrations of watertight and gastight aluminium bulkheads and decks up to the specified pressure.

Description

"Roxtec cable and pipe sealing system with multidiameter technology" consisting of Roxtec S series frames (S, SO, SF, SFO, SR, SK, SKR, SRC r20&r40 and BTB) in sizes 1-8 and in combinations thereof, bolted or welded on to the aluminium sections, filled with Roxtec (standard, Ex or EMC) halogen free insert modules.

Assembled with Roxtec Wedge Kit (Standard, Ex or EMC)

Ratings

A-0, A-15, A-30 and A-60 Bulkheads and Decks

Watertight test pressure 6 bar (except bolted versions test pressure at 5 bar)

Gastight test pressure 4 bar (except bolted versions test pressure at 2.5 bar)

Service Restrictions

- Maximum cable outside diameter up to 81 mm for bulkheads and decks.
- Maximum steel pipe outside diameter up to 54 mm for bulkheads and decks.
- Maximum copper pipe outside diameter up to 57 mm for bulkheads and decks.

d) Maximum tested frame size:

1) Single - 8x1 (One frame of size 8)

2) Multiple Frames -For decks and bulkheads up to A60 rating, two frames of size 8 arranged vertically and three

arranged horizontally, designated S 8+8x3.

e) Minimum tested frame size 1x1 (Size 1 frame)

f) For fire class A-0, A-15 and A-30, the sleeve is to be insulated as for class A-60, and in addition the division shall be insulated at least 200 mm around the penetration.

g) Not for use in tank boundaries.

h) 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.

Comments

a) All seal types should be installed with the manufacturer's instructions in accordance with approved drawings.

b) Refer to ABS approved Drawings S1019806 Rev.- & S1019808 Rev.-

c) Watertight or fire rated bulkheads or decks for pipe and cable penetrations are to be examined and tested as per ABS Marine Vessels Rules 3-7-1/Table1 and 4-8-4/29.15

d) When requested to be used in watertight bulkheads on passenger ships or special purpose ships, the penetration system has to comply with the requirements given in SOLAS Ch. 11-1 Reg. 13.2.3 (2014 Consolidated Edition). 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 (2014 consolidated edition).

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

f) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes, Drawings and Documentation

Test Report number P603001 dated 23 Jan 2007, A-60 Bulkhead / SP Technical Research Institute of Sweden, Boras

Test Report number PG11898 dated 10 Sep 2008, A-60 Bulkhead / Danish Institute of Fire and Security Technology, Hvidovre

Test Report number PG11955 dated 11 Sep 2008, A-60 Deck / Danish Institute of Fire and Security Technology, Hvidovre

Test Report number RS-19-B-224-E, dated 01 August 2019, A-60 deck / CTO, Poland

Test Report number RS-17-B-210-E, dated 02 June 2017, A-60 deck / CTO, Poland.

Test Report number RS-18-B-179-E, dated 25 June 2018, A-60 deck / CTO, Poland.

Test Report number RS-18-B-180-E, dated 25 June 2018, A-60 Bulkhead/ CTO, Poland.

Test Report number RS-19-B-020-E, dated 27 May 2019, A-60 Bulkhead / CTO, Poland.

DNV Third Party Inspection Report number MLM020106 dated 19 Dec 2001

DNV Third Party Inspection Report number MLM020133 dated 26 Feb 2002

RM Module and Wedge Kit Drawings S1005711 Rev D, S1016608 Rev. B, S1011086 Rev A, S1000716 Rev D, S1016671 Rev: -

Roxtec sealing system, Roxtec product sheet

Roxtec Ex sealing system, Roxtec Product sheet

Drawings

Drawing No S1019806 Rev. - , S Frames W Cables A-Class Alu Deck/Blkhd

Drawing No S1019808 Rev. - , S-Frames W ST/CU Pipes A-Class Alu Deck/Blkhd

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 26/Jan/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

ABS Marine Vessels Rules 2020 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-6-2/9.7, 4-8-4/21.13.1

ABS Mobile Offshore Units Rules 2020 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-2-1/11.15, 4-3-3/5.13.1

International Standards

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

IMO FTP Code 2010, Annex I : Part 3

EU-MED Standards

NA

National Standards

NA

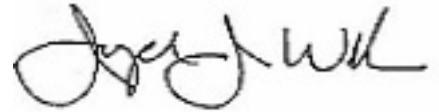
Government Standards

This PDA conforms to Transport Canada requirements as per Transport Canada Policy Letter A8706-1 RDIMS#1961446 dated 15 November 2006

Other Standards

NA





Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 29-Nov-2021 8:56

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.