



Confirmation of Product Type Approval

Company Name: ROXTEC INTERNATIONAL AB

Address: ROMBVAGEN 2 LYCKEBY SE 371 65 Sweden

Product: Penetration Device for Pipe Deck and Bulkhead Penetration Sealing

Model(s): Roxtec S Series Frames in Steel Divisions

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	18-LD1770428-PDA	11-JUN-2019	10-JUN-2024
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

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

Description

"Roxtec 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 combinations thereof, bolted or welded on to the steel sections, filled with Roxtec (standard, Ex or EMC) halogen free insert modules.

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

Ratings

A0, A15, A30 and A60 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

a) Maximum tested size of steel and copper pipes: 50 mm OD for steel Pipe and 54 mm OD for Copper Pipes

b) Maximum tested size of Bundle pipes/ multi core tubes (in stainless steel and copper versions): 50 mm OD for steel / 20 mm OD for copper

c) Maximum tested frame size:

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

2) Multiple Frames - see Below

For decks up to A60 rating, two frames of size 8 arranged vertically and seven arranged horizontally, designated S 8+8x7.

For bulkheads up to A60 rating, two frames of size 8 arranged vertically and ten arranged horizontally, designated S 8+8x10.

d) Minimum Tested Frame Size 1x1 (size 1 Frame)

e) Class A-0, A-15 and A-30 shall be insulated as class A-60 and in addition the division is to be insulated at least 200 mm around the penetration

f) Not for use in tank boundaries

g) For detail information about insulation arrangement, please see ABS approved drawings specified in the Notes, Drawings and Documentation section of this Certificate.

h) Unit Certification is not required for this product. If the manufacturer or purchaser requests 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 in accordance with manufacturer's instructions in accordance with approved drawings: S1534291, S1011073, & 1011074.

b) Watertight bulkheads or decks for pipe penetrations are to be examined and tested as per ABS Marine Vessels Rules 3-7-1/Table1.

c) 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).

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

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

Notes, Drawings and Documentation

1) CTO Fire Test Report Number RS-17/B-395/E dated 30 October 2017 and RS-18/B-485/E dated 10 December 2018

2) SP Fire Test Report Numbers P602999 and P603000 (Both dated 23 January 2007)

3) Multiple sizes, reference fire test reports 6P02516 dated 29 August 2016 & P402000 dated 29 November 2004

4) Roxtec sealing system, Roxtec product sheet

5) Roxtec Ex sealing system, Roxtec Product sheet

6) DNV Watertight and Gastight Test Report MLM020133, dated 26 February 2002, MLM 020400 Dated 25 March 2002

Drawings:

Drawing No. S1534291 Revision: A, S- Series Frames With Steel Pipes A- Class Steel Bulkhead/ Deck

Drawing No: S1011073 Rev - , S- Series Cu- Pipes Insulation A- Class Division

Drawing No: 1011074 Rev. - S- Series Bundle Pipes Insulation A- Class Division

Term of Validity

This Product Design Assessment (PDA) Certificate 18-LD1770428-PDA, dated 11/Jun/2019 remains valid until 10/Jun/2024 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

ABS Rules

ABS Marine Vessels Rules 2019 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 2019 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 Resolution MSC.307(88) - (2010 FTP Code), Annex I: Part 3, 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 dated 15 November 2006

Other Standards

NA



A handwritten signature in black ink, appearing to read 'Joseph W. ...', is written over a light blue grid background.

Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 13-Feb-2024 12:50

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.