



CERTIFICATE NUMBER	20-HS1948304-PDA
EFFECTIVE DATE	30-Jan-2020
EXPIRY DATE	29-Jan-2025
ABS TECHNICAL OFFICE	Houston ESD - Piping

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

ROXTEC INTERNATIONAL AB

located at

ROMBVAGEN 2, LYCKEBY, Sweden, SE 371 65

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product Penetration Device for Pipe Deck and Bulkhead Penetration Se...

Model RS PPS and RS PPS/S series (steel divisions)

This Product Design Assessment (PDA) Certificate remains valid until 29/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.

American Bureau Of Shipping
Yongjin Lee, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

ROXTEC INTERNATIONAL AB

ROMBVAGEN 2

LYCKEBY

Sweden SE 371 65

Telephone: 46-455-366700

Fax: 46-455-82012

Email: info@roxtec.com

Web: www.roxtec.com

Tier: 3 - Type Approved, unit certification not required

Product: Penetration Device for Pipe Deck and Bulkhead Penetration Sealing

Model: RS PPS and RS PPS/S series (steel divisions)

Intended Service:

Single plastic pipe penetrations in Class A0, A15, A30, and A60 bulkheads and decks for ships and offshore application. Penetrations of watertight and gas tight bulkheads and decks up to the specified pressure.

Description:

Roxtec plastic pipe sealing system with multi diameter technology.

RS PPS 31-450 - Consisting of a steel sleeve, bolted or welded to a steel section. The sleeve is fitted at both ends with Roxtec RS seals (standard or EMC versions) including intumescent material in between.

RS PPS/S 31-150 - Consisting of a steel sleeve, bolted, welded or SLX-type sleeve attached through expansion, on to the steel sections. The sleeve is fitted with one single RS PPS/S seal with integrated intumescent material. Minimum thickness for steel sleeve is 1.5 mm.

Rating:

Fire Rating: A0, A15, A30, and A60 for bulkheads and decks.

RS PPS pressure tested for 6 bar watertightness and 4 bar gastightness.

RS PPS/S pressure tested for 6 bar watertightness and 3 bar gastightness.

A60 Steel bulkhead division (for watertight bulkhead division for Passenger Ships and Special Purpose Ships as per SOLAS II-1/13.2.3).

RS PPS/S 43-150. The transits are tested for watertightness with 2 bar test pressure for 60 minutes after an A60 fire test.

Service Restriction:

1) Maximum plastic pipe size 355 mm diameter.

2) Not for use in tank boundaries.

3) 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:

1) All seal types should be installed in accordance with manufacturers ABS approved installation drawings.

2) Insulation material is to be A60 approved type and installed in accordance with manufacturers ABS approved installation drawings to the Surveyors satisfaction.

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

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

5) 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 2014), as amended.

6) All seal types should be installed in accordance with manufacturer's ABS approved installation drawings.

Notes/Drawing/Documentation:

Certificate Drawings List

1) Drawing No. S1550955, Rev. A - RS PPS with Pipes - A60 Class Steel Deck/Bulkhead

2) Drawing No. S1550956, Rev. A - RS PPS with Pipes - A0 Class Steel Deck/Bulkhead

3) Drawing No. S1550958, Rev. A - RS PPS/S with Pipes - A60 Class Steel Deck/Bulkhead

4) Drawing No. S1550959, Rev. A - RS PPS/S with Pipes - A0 Class Steel Deck/Bulkhead

5) Drawing No. S1550982, Rev. A - RS PPS/S Plastic Pipe - A-Class Watertight Steel Divisions

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Fire Test Report	Report Date	Laboratory
P502921	2005-12-01	SP Technical Research Institute of Sweden
P701755	2007-06-12	SP Technical Research Institute of Sweden
P902394	2009-05-25	SP Technical Research Institute of Sweden
6P10024	2017-03-07	SP Technical Research Institute of Sweden
8P04040	2018-08-13	SP Technical Research Institute of Sweden
8P07094	2020-01-16	SP Technical Research Institute of Sweden
RS-18/B-023/E	2018-01-29	CTO Centrum Techniki Okretowej S.A. Poland
RS-18/B-484/E	2018-12-10	CTO Centrum Techniki Okretowej S.A. Poland
RS-18/B-291/E	2018-08-20	CTO Centrum Techniki Okretowej S.A. Poland
RS-18/B-292/E	2018-09-13	CTO Centrum Techniki Okretowej S.A. Poland
RS-18/B-293/E	2018-09-13	CTO Centrum Techniki Okretowej S.A. Poland
RS-19/B-256/E	2019-08-20	CTO Centrum Techniki Okretowej S.A. Poland
RS-19/B-356/E	2019-10-18	CTO Centrum Techniki Okretowej S.A. Poland
RS-19/B-424/E	2019-11-27	CTO Centrum Techniki Okretowej S.A. Poland
PGA10025	2011-12-22	DBI - The Danish Institute of Fire and Security, Denmark
PGA10141	2012-07-10	DBI - The Danish Institute of Fire and Security, Denmark
PGA11302A	2019-01-16	DBI - The Danish Institute of Fire and Security, Denmark
N141S7E5	2019-03-10	Roxtec International AB, Sweden
N141UBRY	2019-08-07	Roxtec International AB, Sweden
N141NBR5	2018-11-05	Roxtec International AB, Sweden
N141RA6Z	2019-01-24	Roxtec International AB, Sweden
N141SGZW	2019-03-10	Roxtec International AB, Sweden
N141SMF7	2019-03-15	Roxtec International AB, Sweden
N141SMF8	2019-03-15	Roxtec International AB, Sweden
N141SRGA	2019-03-15	Roxtec International AB, Sweden
Water and Gas Tightness Test - DNV-GL Report	Report Date	Laboratory
MLM060511	2006-02-28	Roxtec International AB, Sweden
MLM070656	2007-04-18	Roxtec International AB, Sweden
SKM-04-4088	2004-06-16	Roxtec International AB, Sweden

Terms of Validity:

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STANDARDS**ABS Rules:**

2020 ABS Rules for Building and Classing Marine Vessels 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-6-2/9.7.1 & 2, 4-6-3/7.11
 2020 ABS Rules for Building and Classing Mobile Offshore Units 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-2-1/11.15, 4-2-2/7.7.4

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National:

NA

International:

SOLAS (2014 Consolidated Edition) Ch. II-2, Reg. 9.3.1, Ch. II-1, Part B-2, Reg. 13.2.3;
2010 Resolution MSC.307(88), 2010 FTP Code (2012 Edition), Annex 1 Part 3; IMO Resolution A.754 (18).

Government:

PDA conforms to Transport of Canada - Marine Machinery Regulations (SOR/90-264), 2019.

EUMED:

NA

OTHERS:

NA