



Confirmation of Product Type Approval

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product.

This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 08-NOV-2023. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

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.

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.

Product Name: Penetration Device for Pipe Deck and Bulkhead Penetration Sealing

Model Name(s): Roxtec RS PPS Seals in Aluminium Divisions

Presented to:

ROXTEC INTERNATIONAL AB
ROMBVAGEN 2
SE 371 65
Sweden

Intended Service:

Single plastic pipe penetrations in Class A0, A15, A30 and A60 aluminium bulkheads and decks for marine and offshore applications. Penetrations of watertight and gastight aluminium bulkheads and decks up to the specified pressure.

Description:

RS PPS consists of an extended aluminium sleeve bolted or welded to an aluminium section. The sleeve is fitted at both ends with Roxtec RS seals (standard or EMC versions) including inserted intumescent material in between.

Tier:

3

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 and Minimum tested Thermoplastic pipe (PP, PVC, PB, ABS, PE): 16 mm to 160mm outside diameter. b) Maximum and Minimum tested PE/ALU/PE flexible pipe: 16 mm to 110mm outside diameter. c) Maximum / Minimum Size of Transit Frame tested : RS PPS 200/ RS PPS 31 for Thermoplastic pipes and RS PPS 150/ RS PPS 31 for PE/ ALU/ PE flexible pipes. d) For frame arrangements larger than those tested, special approval is to be requested. e) Not for use in tank boundaries. f) 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. g) 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 type should be installed in accordance with the manufacturers instructions and ABS approved installation drawings. b) Insulation material is to be A60 approved type and properly installed in accordance with ABS approved drawings 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 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). 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 74/78 (2014 Consolidated Edition). 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 / Documentation: 1) SINTEF Fire Test Report: 103070.33A Dated 15-11-2004 2) DBI Fire Test Reports PGA10802A, PGA 10801A both Dated 29-08-2016 3) SP Fire Test Reports P 403634 Dated 30-12-2004, P 501943 Dated 18-05-2005 4) Pressure test:Report Nos: MLM 010247, MLM 020408 5) Certification Drawing No. S1535484 Rev A,- RS PPS with Thermoplastic & PE/Alu/PE Pipes , A- Class Alu Blkhd/ Deck 6) Information Drawing No. S1007685 Rev F- RS PPS Seal RS PPS 31-RS PPS 200 7) Installation Instructions Roxtec RS PPS

Term of Validity: This Product Design Assessment (PDA) Certificate 18-LD1779912-PDA, dated 09/Nov/2018 remains valid until 08/Nov/2023 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 Steel Vessel Rules (2018) 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-6-3/7.11 ABS Mobile Offshore Drilling Units Rules (2018) 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-2-2/7.7.4

National Standards:
International Standards: Regulation II-2/ 9.3.1 of SOLAS (2014 Consolidated Edition) IMO Resolution MSC.307(88) - (2010 FTP Code), Annex I: Part 3, adopted on 3 December 2010

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

EUMED:
Others:

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	18-LD1779912-PDA	09-NOV-2018	08-NOV-2023



ABS Programs

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 was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. 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.