



## ***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/JAN/2019. 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 26/FEB/2020 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/RS OMD Seals in aluminium divisions**

**Presented to:**

ROXTEC INTERNATIONAL AB  
BOX 540  
Sweden

**Intended Service:**

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

**Description:**

"Roxtec pipe sealing system with multidiameter technology" composed of aluminium sleeves (welded or bolted) or sleeves of SLX-RS type with RS or RS OMD type (EMC versions included) halogen free rubber sealings outside diameter size 23 mm to 150 mm, mounted in aluminium decks or bulkheads. RSX kits consist of SLXRS type sleeves including an RS seal.

**Tier:**

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**Ratings:**

A0, A15, A30 and A60 Aluminium Bulkheads and Decks for single pipe penetrations A0, A15, A30 and A60 Aluminium Bulkheads for single bundle pipe penetrations 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) Copper pipes up to 108 mm, Steel pipes up to 114.3 mm. b) Bundle pipes/ multi core tubes (in stainless steel and copper versions) up to 50 mm outside diameter, sizes R43 - R100 only c) Glass fibre reinforced pipe (GRP) / Fiberglass Composite Pipe (FGCP) outside diameter up to 90 mm for decks and 89 mm for bulkheads. d) Maximum fitting outside diameter range 150 mm to 168 mm e) Not for use in tank boundaries. f) Watertight bulkheads or decks are to be examined and tested as per

ABS SVR 3-7-1/Table1 . g) 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. II -1 Reg. 13.2.3 (2009 or latest issue). 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 1974 as amended. h) 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 with the manufacturer's instructions in accordance with the attached drawings. b) Insulation material is to be A-60 approved type and installed in accordance with the attached drawings to the satisfaction of the Surveyor. c) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

**Notes / Documentation:**

a) Approval of the arrangements and materials based on SINTEF Test Reports: 22N007.15A, 22N007.15B and Inspection Report No. MLM 010235, DBI Danish Institute of Fire and Security Technology, Fire test report Numbers PG11955 dated 17 April '09, PG11898 dated 17 April '09, ; SP Swedish National Testing and Research Institute Test Report No: P603001 dated 23 Jan 2007. b) Roxtec drawing nos S1019824, for RS/RS OMD seals with copper pipes; S1019832, for RS/RS OMD seals with GRP/FGCP; S1002247, for RS frames; S1002249, for RS frames, Drawing No. S1040796 for bundle pipes.

**Term of Validity:**

This Product Design Assessment (PDA) Certificate 15-LD1312420-PDA, dated 27/Feb/2015 remains valid until 26/Feb/2020 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:**

The Rules applicable to this assessment are 2015 ABS Steel Vessel Rules 1-1-4/7.7, 1-1-A3 , 1-1-A4, & 4-6-2/9.7, 4-6-3/7.11, 2015 Rules for Building and Classing Facilities on Offshore Installations 1-1-A2, 1-1-A3, 1-1-4/9.7, 3-8/9.13, 4-8/9.13, 2015 Mobile Offshore Drilling Units Rules 1-1-A2, 1-1-A3, 1-1-4/9.7, 4-2-1/11.15

**National Standards:**

**International Standards:**

SOLAS Ch. II-2, Reg. 9.3.1 (2014 consolidated edition), IMO Resolution A.754 (18)

**Government Authority:**

This PDA conforms to Transport of Canada requirements.

**EUMED:**

**Others:**

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	15-LD1312420-PDA	03/MAR/2015	26/FEB/2020



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.