



## *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 11-JUN-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 Bulkhead and Deck Firetight and Watertight Penetrations

**Model Name(s):** Roxtec Sleeve-it Fire penetration seal/ Roxtec Sleeve-it Waterproof penetration seal in Aluminium divisions.

**Presented to:**

ROXTEC INTERNATIONAL AB  
ROMBVAGEN 2  
SE 371 65  
Sweden

**Intended Service:**

Single pipe penetration in Class A0, A15, A30 and A60 Aluminium bulkheads and decks for plastic pipes in Marine and Offshore Application. Penetrations of watertight and gastight aluminium decks up to specified pressure.

**Description:**

Roxtec Sleeve-it Fire Penetration Seal consist of an intumescent strip material inserted in an openable stainless steel casing, equipped with an openable flange, intended for bolted or spot welded installation onto Aluminium divisions. Roxtec Sleeve-it Waterproof penetration seal consist of an intumescent strip material inserted in a closed stainless steel casing, equipped with a closed flange with an EDPM rubber grommet, intended for fully welded installation onto Aluminium divisions.

**Tier:**

3

**Ratings:**

Fire Rating : A0, A15, A30 and A60 Bulkheads and Decks. Waterproof penetration seal: Watertightness tested upto 1.5 bar and gas tightness tested upto 1 bar.

**Service Restrictions:**

a) Maximum and Minimum tested plastic pipes (Poly Propylene & Poly Butylene Pipes) 225 mm and 16 mm. b) Roxtec Sleeve-it Fire penetration: Outside diameter 16 to 225 mm for plastic pipes for bulkhead and decks, in size 16-225 mm. c) Roxtec Sleeve-it Waterproof penetration : Outside diameter 16 to 225 mm for plastic

pipes for Deck, in size 16-225 mm. d) Maximum and Minimum size of Transits: Size 225 mm and Size 16 mm e) Not for use in tank boundaries. f) Transits are to be insulated as per the approved ABS drawings for all fire division ratings. g) 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. h) Maximum service temperature of the sealant is +70 Degree C. i) 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 as per manufacturer's instructions in accordance with ABS approved installation drawings. b) Insulation material is to be A-60 approved type and properly installed 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 and Special Purpose Ships (SPS), the penetration system has to comply with the requirements given in SOLAS Ch.II-1 Reg. 13.2.3 (Consolidated Edition 2014), as amended. 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 (Consolidated Edition 2014), as amended. 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:**

Document No. PGA10801A, Fire Test Report, A- Class Aluminium Bulkhead by DBI, Denmark dated 29 August 2016 Document No. PGA10802A, Fire Test Report, A- Class Deck by DBI, Denmark dated 29 August 2016 Document No. RS-17/B-209/E, Fire Test Report, A- Class Aluminium Bulkhead by Centrum Techniki Okretowej SA, Poland dated 02 June 2017 Document No. RS-17/B-210/E, Fire Test Report, A- Class Deck by Centrum Techniki Okretowej SA, Poland dated 02 June 2017 Document No. RS-17B-555E, Fire Test Report, A- Class Aluminium Bulkhead by Centrum Techniki Okretowej SA, Poland dated 15 January 2018 Document No. N141EX90, Survey Report, Witness of Pressure Testing- Roxtec Sleeve-It WT ALU, by DNV dated 30 June 2017. Drawings Drawing No. S1530864 Revision: A, Sleeve -It FC Installation A15-A60 ALU Blkhd/ Deck- Certificate Drawing Drawing No. S1530914, Sleeve -It WT Installation A15-A60 ALU Deck- Certificate Drawing Drawing No. S1507771, Revision: B, Sleeve-It FC ALU FC 16-225 ALU, Information Drawing Drawing No. S1507772, Revision: D, Sleeve-It FC ALU FC 16-225 ALU, Information Drawing, Miscellaneous Document No. 151408 DOC-001370 A , Roxtec Sleeve it Alu Fire penetration seal- Installation Instructions , Revision: A Document No. 151406 DOC-001371 A, Roxtec Sleeve it Alu Waterproof penetration seal- Installation Instructions , Revision: A

**Term of Validity:**

This Product Design Assessment (PDA) Certificate 18-LD1745178-PDA, dated 12/Jun/2018 remains valid until 11/Jun/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:**

2018 Steel Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-6-3/7.11; 2018 Mobile Offshore Drilling Units Rules 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 ( Consolidated Edition 2014) IMO Resolution MSC. 307 (88) - ( 2010 FTP Code), Annex I: Part 3, Adopted 3 December 2010

**Government Authority:**

This PDA conforms to Transport of Canada requirements as per Transport Canada Policy Letter A8706-1 RDIMS#1961446

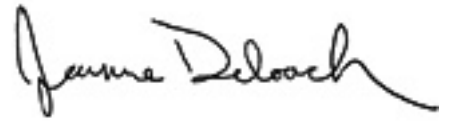
**EUMED:****Others:****Model Certificate****Model Certificate No****Issue Date****Expiry Date**

PDA

18-LD1745178-PDA

14-JUN-2018

11-JUN-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.