Confirmation of Product Type Approval

Company Name: ROXTEC SEALING SYSTEM (SHANGHAI) CO LTD

Address: GROUND FLOOR, BUILDING A, NO 875 QIUXIN ROADLINGANG NICHENG INDUSTRIAL AREA, PUDONG DISTRICT SHANGHAI China

Product: Cable, Deck and Bulkhead Penetration Sealings

Model(s): Roxtec RS Seals in Aluminium Divisions

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	20-1956535-PDA-DUP	05-JUL-2023	11-MAR-2025
Manufacturing Assessment (MA)	23-6047656	28-SEP-2023	27-SEP-2028
Product Quality Assurance (PQA)	NA	NA	NA

Tier
3 - Type Approved, unit certification not required

Intended Service
Single cable penetrations in Class A0, A15, A30 and A60 bulkheads and decks for Marine and Offshore Application. Penetrations of watertight and gastight aluminium bulkheads and decks up to the specified pressure.

Description
"Roxtec cable sealing system with multidiameter technology" composed of aluminium sleeves (welded or bolted, including SLA sleeve) or sleeves of SLX-RS type with RS- type (EMC versions included) halogen free rubber sealings in size 23-125, mounted in aluminium decks or bulkheads.

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)

Watertight Test Pressure with SLA Sleeve- 4 bar

Gastight Test Pressure with SLA Sleeve- 1.5 bar

Service Restrictions
a) Maximum cable diameter: 86 mm (without SLA Sleeve)

b) Maximum cable diameter: 10 mm for bulkheads and 50 mm for decks with SLA Sleeve.

c Minimum and Maximum frame sizes tested are 23 & 125 for RS and 25 & 100 for RS with SLA Sleeve.

d) Not for use in tank boundaries.

e) Tested with Marine Power/ Instrumentation/Control Cables.

f) Insulation material is to be A-60 approved type and installed in accordance with the manufacturer's ABS approved installation drawings S1552203 Revision: A (With out SLA Sleeve) and S1552210, Revision: A (with SLA Sleeve) to the satisfaction of the Surveyor.

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) 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 in accordance with ABS approved installation drawings.

b) Watertight or fire rated bulkheads or decks for cable penetrations are to be examined and tested as per ABS Marine Vessels Rules 3-7-1/Table 1 and 4-8-4/29.15.

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. II -1 Reg. 13.2.3 (Consolidated Edition 2014). 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).

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
Test Reports

CTO Fire Test Report Number RS-17/B-555/E, Pipe penetrations and Cable transits and in class A-60 Aluminium Bulkhead, Dated 15-01-2018

CTO Fire Test Report Number RS-17/B-210/E, Pipe penetrations and Cable transits and in class A-60 Aluminium Deck, Dated 02-06-2017

CTO Fire Test Report Number RS-19/B-020/E, Pipe penetrations and Cable transits and in class A-60 Aluminium Bulkhead (SLA Sleeve) , Dated 27-05-2019

CTO Fire Test Report Number RS-19/B-224/E, Pipe penetrations and Cable transits and in class A-60 Aluminium Deck (SLA Sleeve) , Dated 01-08-2019

DBI Fire Test Report Number PGA11371A, Cable transits and pipe penetration in class A-60 Aluminium deck (SLA Sleeve) , Dated 20-02-2019

DNV Third Party Inspection Report number MLM010235 dated 21 Aug 2001

DNV Third Party Inspection Report number. N141EX8Z rev2, Dated 10-08-2017

Drawings

Drawing No. S1552203, Certificate drawing, Revision: A,

Drawing No. S1552210, Certificate drawing, Revision: A

Term of Validity
This Product Design Assessment (PDA) Certificate remains valid until 11/Mar/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.

ABS Rules
2020 ABS Marine Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-8-4/21.13, 4-8-4/29.15

2020 Rules for Building and Classing Facilities on Offshore Installations 1-1-4/9.7, 1-1-A2, 1-1-A3, 3-8/9.13, 4- 8/9.13

2020 Mobile Offshore Units Rules 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-3-3/5.13

International Standards
SOLAS Ch. II-2, Reg. 9.3.1 (2014 Consolidated Edition)

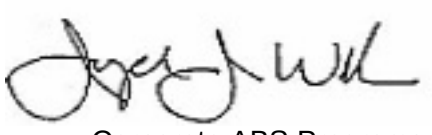
IMO FTP Code 2010 (2012 Edition), Annex 1 Part 3

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

Other Standards
NA



Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 17-Nov-2023 4:27

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.