DNV·GL

Certificate No:
MEDB000017T

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of the Kingdom of Norway.

This is to certify:

That the Penetrations through "A" class divisions: pipe, duct, trunk, etc penetrations

with type designation(s)
Roxtec sealing system with multidiameter technology: R-series (AI)

Issued to
Roxtec International AB
KARLSKRONA, Sweden

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2015/559,**
Annex A.1, item No. A.1/1.26b and Annex B, Module B in the Directive; SOLAS 74 as amended, Reg. III/4, III/16, III/34 & X/3, LSA Code and 2000 HSC Code 8

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2021-08-29**.

Issued at **Høvik** on **2016-11-17**

DNV GL local station:
Gothenburg

Approval Engineer:
Ivar Bull

Notified Body
No.: **0575**

for **DNV GL AS**

Vidar Dolonen
Head of Notified Body

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Product description

"Roxtec sealing system with multidiameter technology: R-series (Al)"
consisting of an aluminium sleeve, bolted, welded to an aluminium section. Sleeve is fitted with a Roxtec R frame (standard or EMC) in sizes 70-200. The R-frame is filled with Roxtec (standard or EMC) halogen free RM modules.

Application/Limitation

Approved for use as a single pipe penetration system in class A-0, A-15, A-30 and A-60 aluminium bulkheads and decks for steel and copper pipes with Ø 10 to 54 mm. Other applications are subject to case-by-case approval. Deck or bulkhead to be insulated with approved insulation according to classification covering the edge of the aluminium sleeve. See insulation drawing specified in the Type Examination Documentation. For fire class A-0, A-15 and A-30, the sleeve is to be insulated as for class A-60.

The insulation material used has to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

Cold service piping insulated with Armaflex rubber insulation layer may be used with approved penetrations but is to be locally interrupted through the penetration system.

Each product is to be supplied with its manual for installation and use.

Type Examination documentation

Test report No. P603001 dated 23 January 2007 from SP, Borås, Sweden.

Test report PG 11955 Serial No. 11979 dated 17 April 2009 from DIFT, Denmark.

Drawing No. S1023871 Rev. B dated 18 May 2011 from Roxtec International AB.

Tests carried out

Tested according to IMO FTPC Part 3 (IMO Res. A.754(18)) and in compliance with IMO 2010 FTP Code Ch. 8.

Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, fire-technical rating, MED Mark of Conformity and/or USCG approval number if applicable (Page 1).

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Additional application/information for Watertightness/gastightness (Not part of the Marine Equipment Directive requirement)

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Application/Limitation

Cable and pipe penetrations approved for water - and gas tightness in steel and aluminium bulkheads or decks, limited to a pressure of 4 bar for water tightnes and 2,67 bar for gas tightness.
When used in High Speed and Light Crafts the penetrations are subject for approval in each case.

The penetration system is generally not to be used for penetrating boundaries of tanks.

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 (2009 issue). Penetrations passing through watertight bulkheads are subject for separate examination and approval by actual flag administration.

Each product is to be supplied with its manual for installation and use.

Type Approval documentation

Test reports: DNV No. MLM 010238 dated 2001-08-30, No. MLM 010247 dated 2001-08-29 and No. MLM 030473 dated 2003-01-27 and SMM 04-4088 dated 2004-06-16 from DNV Malmø.
Certificate retention survey report. Ref. MED audit carried out 2 November 2010.

Tests carried out

Pressure tests with water and Helium according to DNVGL-CP-0165.