

Certificate No:
MED-B-9250
Item No:
A1/3.26b
Job Id:
344.1-000153-45

EC TYPE EXAMINATION CERTIFICATE

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2012/32/EU, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This Certificate is issued by DNV GL 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 , S-series (AL)

Issued to

Roxtec International AB

KARLSKRONA, Sweden

is found to comply with the requirements in the following Regulations/Standards:


Annex A.1, item No. A.1/3.26b and Annex B, Module B in the Directive. SOLAS 74 as amended, Regulation II-2/9, IMO MSC/Circ.1276 and IMO FTP Code

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

Høvik, 2014-08-20
for DNV GL AS



This Certificate is valid until
2019-07-15

for

Marianne Strand Valderhaug
Head of Department

Notified Body No.: **0575**

DNV GL local office:
Malmö


Synnøve Bolstad Eri
Surveyor



The Certificate is subject to terms and conditions overleaf. Any significant changes in design or construction of the product, or amendments to the Directive or Standards referenced above may render this Certificate invalid. The product liability rests with the manufacturer or his representative in accordance with Council Directive 96/98/EC, as amended. The Mark of Conformity may only be affixed to the product and a Declaration of Conformity may only be issued when the production/product assessment module referred to in the council directive, is fully complied with.

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Product description

"Roxtec sealing system with Multidiameter™, S-series (Al)"

consisting of Roxtec S-series aluminium frames (S, SO, SF, SFO, SR, SK, SRC r20, SRC r40, SBTB) in sizes 1-8 and combinations thereof, welded or bolted to an aluminium section. The S frame is filled with Roxtec (standard or EMC) halogen free RM modules. Assembled with Roxtec wedge kit or Roxtec EMC wedge kit.

Multidiameter™ is a Roxtec technology based on sealing modules with removable layers.

Application/Limitation

Approved for use as a single or bundle pipe penetration system in class A-0, A-15, A-30 and A-60 aluminium bulkhead and deck as follows:

Steel pipes: OD up to 54 mm, deck and bulkhead

Copper pipes: OD up to 57 mm, deck and bulkhead

Bundle pipes (Cu and steel): OD up to 32 mm for bulkhead and OD up to 50 mm for deck.

Deck or bulkhead to be insulated with approved insulation according to classification covering the edge of the aluminium frame. See insulation drawing specified in the Type Approval Documentation. For fire class A-0, A-15 and A-30, the sleeve and pipes 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.

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

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

Type Examination documentation

Test reports No:

PG 11898, Serial No. 11923 and PG 11955, Serial No. 11979 both dated 17 April 2009 from DIFT, Copenhagen Denmark.

P603001 dated 23 January 2007 and P603000 dated 27 January 2007 from SP, Sweden.

Drawing No. S1017332 Rev. 0 dated 15 May 2009 from Roxtec International AB (Insulation drawing).

Tests carried out

Tested according to IMO FTPC Part 3 and in compliance with IMO 2010 FTP Code Ch. 8.

Marking of product

The product or packing is to be marked with name of manufacturer, type designation, fire-technical rating, Mark of Conformity and USCG approval number if applicable (see below and page 3).

Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and shall issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

Module D: The quality system for production and testing shall be approved by the Notified Body.

Module E: The quality system for inspection and testing shall be approved by the Notified Body.

Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a Certificate of Conformity.

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USCG Approval

An U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005.



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APPENDIX, REV. NO. 0

Additional application/information for Watertightness/gastightness (Not part of the Marine Equipment Directive requirement) Rev. 1

Product description

Roxtec sealing system with Multidiameter™, S-series (AI)™ consisting of Roxtec S-series aluminium frames (S, SO, SF, SFO, SR, SK, SRC r20, SRC r40, SBTB) in sizes 1-8 and combinations thereof, welded or bolted to an aluminium section. The S frame is filled with Roxtec (standard or EMC) halogen free RM modules. Assembled with Roxtec wedge kit or Roxtec EMC wedge kit.

Multidiameter™ is a Roxtec technology based on sealing modules with removable layers.

Application/Limitation

Approved for penetration in aluminium bulkheads or decks limited to a pressure of 4 bar watertightness and 2.67 bar gastightness (Ref. page 2 of the certificate).

For bolted versions with gasket and self tapping screws, the pressure is limited to 3.33 bar watertightness and 1.67 bar gastightness.

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

Type Approval documentation

Test reports No. MLM 020133 dated 26 February 2002, No. MLM 020400 and No. MLM 020401 dated 25 March 2005 and MLM050410 dated 20 May 2005 from DNV Malmö.

Tests carried out

Pressure tests with water and Helium according to DNV Type Approval Programme 8.471.19-1

END OF CERTIFICATE