



TYPE APPROVAL CERTIFICATE
No. LAB259217CS/003

This is to certify that the product identified below is in compliance with the regulations herewith specified.

<i>Description</i>	Devices for the passage of electric cables and pipes through A or B Class divisions
<i>Type</i>	Roxtec R Series
<i>Applicant</i>	ROXTEC INTERNATIONAL AB ROMBVAGEN 2, P.O. BOX 540 SE-37123 KARLSKRONA SWEDEN
<i>Manufacturer</i>	ROXTEC INTERNATIONAL AB
<i>Place of manufacture</i>	ROMBVAGEN 2, P.O. BOX 540 SE-37123 KARLSKRONA SWEDEN
<i>Reference standards</i>	IMO Res. MSC.307(88)-(2010 FTP Code)

Issued in Genoa on February 2, 2018. This Certificate is valid until February 7, 2023

RINA Services S.p.A.

Enrico Cabella

This certificate consists of this page and 1 enclosure

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Roxtec R Series

Product description

Devices, composed of halogen free material packing system, for the passage of steel pipes having diameter ranging from 8 up to 54 mm and electric cables having diameter ranging from 10 up to 28 mm through A Class aluminium bulkheads and decks. The aluminium bulkheads and decks are insulated by means of two layers of mineral wool with aluminium foil, 30 mm thick each and having density of 130 kg/m³ on the exposed side (decks) and on both sides (bulkhead). The division insulation covers also the transits that may be fitted with additional insulation as described in the following tables:

BULKHEADS - PIPE PENETRATION

TYPE OF TRANSITS - PIPE DIAMETER	ADDITIONAL INSULATION	TRANSIT FIXING AND NOTES
R70 - pipe diameter 10 mm	Mineral wool cylinder, two layers 30 mm thick each (compressed to 50 mm), having density of 125 kg/m ³ and length of 300 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insulation is fitted on the unexposed side.
R200 - pipe diameter ranging from 10 mm up to 54 mm	Mineral wool cylinder, two layers 30 mm thick each (compressed to 50 mm), having density of 125 kg/m ³ and length of 300 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insulation is fitted on the unexposed side.

DECKS - PIPE PENETRATION

TYPE OF TRANSITS - PIPE DIAMETER	ADDITIONAL INSULATION	TRANSIT FIXING AND NOTES
R70 - pipe diameter 8 mm	Mineral wool cylinder with steel net, one layer 50 mm thick, density of 100 kg/m ³ and length of 400 mm	The penetration may be fixed to the deck plate in the middle, exposed or unexposed side; the additional insulation is fitted on the exposed side.
R200 - pipe diameter ranging from 12 mm up to 54 mm	Mineral wool cylinder, two layers 30 mm thick each (compressed to 50 mm), having density of 125 kg/m ³ and length of 300 mm	The penetration may be fixed to the deck plate in the middle, exposed or unexposed side; the additional insulation is fitted on the exposed side.

TYPE APPROVAL CERTIFICATE**No. LAB259217CS/003****Enclosure - Page 2 of 3****BULKHEADS - CABLE TRANSITS**

Transit type	Minimum fill %	Maximum fill %	Cables - Minimum diameter (mm)	Cables - Maximum diameter (mm)	ADDITIONAL INSULATION	TRANSIT FIXING AND NOTES
R70	4	4	10	10	No additional insulation	The penetration is fixed to the bulkhead plate in the middle.
R200	10	10	10	28	No additional insulation	The penetration is fixed to the bulkhead plate in the middle.

DECKS - CABLE TRANSITS

Transit type	Minimum fill %	Maximum fill %	Cables - Minimum diameter (mm)	Cables - Maximum diameter (mm)	ADDITIONAL INSULATION	TRANSIT FIXING AND NOTES
R50	5	5	10	10	No additional insulation	The penetration is fixed to the deck plate on unexposed side.

Field of application

Fire resistant A-60 Class pipe and cable penetrations through load-bearing aluminium bulkheads and decks.

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Reference documents

Roxtec drawings enclosed in SP Test Report No. P603001 dated 23 January 2007, DANAK Test Reports No. PG11955 and No. PG11898 dated 17 April 2009 and CTO Test Report No. RS-17/B-210/E dated 2 June 2017.

Tests carried out

Tests as per SP Test Report No. P603001 dated 23 January 2007 and DANAK Test Reports No. PG11955 and No. PG11898 dated 17 April 2009 issued according to IMO Res. A.754 (18) and CTO Test Report No. RS-17/B-210/E dated 2 June 2017 issued according to 2010 FTP Code.

General conditions for the approval

- a) The initial conditions verified by RINA at the time of the approval are to be maintained
- b) Any changes to the initial conditions are to be promptly communicated to RINA, which reserves the right to repeat the relevant assessment
- c) This certificate will no be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with RINA
- d) RINA personnel are to allowed to witness during the performances of activities, upon their request
- e) The activities are to be carried out in compliance with the RINA Rules and/or other applicable Rules
- f) Should the specified regulations or standards be amended during the validity of this certificate, the product is to be reapproved prior to it being placed on board vessels to which the amended regulations or standards apply.

Genoa 2/02/2018

File Allegato/Attached file