TYPE APPROVAL CERTIFICATE
No. **LAB498522CS/004**

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

Description	**Devices for the passage of pipes through A or B Class divisions**
Type	**Roxtec S Series**
Applicant	**ROXTEC INTERNATIONAL AB** **ROMBVAGEN 2, P.O. BOX 540** **SE-37123 KARLSKRONA** **SWEDEN**
Manufacturer	**ROXTEC INTERNATIONAL AB**
Place of manufacture	**ROMBVAGEN 2,** **37165 LYCKEBY** **SWEDEN**
Reference standards	**IMO Res. MSC.307(88)-(2010 FTP Code)**

Issued in **Genoa** on **June 5, 2023**. *This Certificate is valid until* **February 7, 2028**

RINA Services S.p.A.

Enrico Cabella

This certificate consists of this page and 1 enclosure

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Product description

Devices, composed of halogen free material packing system, for the passage of metallic pipes having diameter ranging from 8 up to 57 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 (certified non-combustible according to the IMO FTP Code), having, each, minimum thickness of 30 mm thick and minimum density of 130 kg/m^3 fitted on the exposed side (decks) and on both sides (bulkhead). The division insulation covers also the transits and is applied all around the same for a minimum width of 250 mm; the transits are fitted with additional insulation (certified non-combustible according to the IMO FTP Code) as described in the following tables; the thicknesses and density values are to be considered as the minimum.

BULKHEADS - METALLIC PIPES

TYPE OF TRANSITS	TYPE OF PIPES	ADDITIONAL INSULATION	TRANSIT FIXING AND NOTES
S 1x1	Copper pipe diameter of 10 mm	Mineral wool cylinder, one layer 50 mm thick having density of 100 kg/m3 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.
S 1x1	Steel pipe diameter of 10 and 12 mm	Mineral wool cylinder, one layer 50 mm thick having density of 100 kg/m3 and length of 200 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insulation is fitted on the unexposed side.
S 8x2	Copper pipe diameter from 8 up to 57 mm Steel pipe diameter from 8 up to 54 mm	Mineral wool cylinder, one layer 50 mm thick having density of 100 kg/m3 and length of 200 mm (steel pipe) and 300 mm (copper pipe)	The penetration is fixed to the bulkhead plate in the middle; the additional insulation is fitted on the unexposed side.

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DECKS - METALLIC PIPES

TYPE OF TRANSITS	TYPE OF PIPES	ADDITIONAL INSULATION	TRANSIT FIXING AND NOTES
S 1x1	Steel pipe diameter of 10 mm	Mineral wool cylinder, one layer 50 mm thick having density of 100 kg/m^3 and length of 400 mm	The penetration is fixed to the deck plate in the middle, exposed or unexposed side; the additional insulation is fitted on the exp. side.
S 8x2	Steel pipe diameter from 8 up to 54 mm	Mineral wool cylinder, one layer 50 mm thick having density of 100 kg/m^3 and length of 400 mm	The penetration is fixed to the deck plate in the middle, exposed or unexposed side; the additional insulation is fitted on the exp. side.
S 1x1	Copper pipe diameter of 10mm	Mineral wool cylinder, two layers 50 mm thick each, having density of 100 kg/m^3 and length of 500 mm	The penetration is fixed to the deck plate in the middle, exposed or unexposed side; the additional insulation is fitted on the exp. side.
S 8x2	Copper pipe diameter from 10 up to 57 mm	Mineral wool cylinder, one layer 50 mm thick having density of 100 kg/m^3 and length of 500 mm	The penetration is fixed to the deck plate in the middle, exposed or unexposed side; the additional insulation is fitted on the exp. side.

Field of application

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

Reference documents

Roxtec drawings enclosed in DANAK Test Reports No. PG11898 and No. PG11955 dated 17 April 2009 and CTO Test Report No. RS-17/B-210/E dated 2 June 2016 .

Tests carried out

Tests as per DANAK Test Reports No. PG11898 and No. PG11955 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 2016 issued according to IMO 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 5/06/2023

File Allegato/Attached file

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