



TYPE APPROVAL CERTIFICATE
No. LAB035218CS/005

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 pipes through A or B Class divisions
<i>Type</i>	Roxtec SPM Seal on aluminium bulkhead
<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 8, 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

TYPE APPROVAL CERTIFICATE
No. LAB035218CS/005
Enclosure - Page 1 of 2
Roxtec SPM Seal on aluminium bulkhead
Product description

Circular pipe penetrations named SPM, composed of highly elastic EPDM rubber and fittings of stainless steel and having diameter ranging from 39 mm (type SPM 39) up to 279 mm (type SPM 279). The bulkheads are insulated on both sides by means of two layers of mineral wool 30 mm thick each and having density of 130 kg/m³. The division insulation covers also the transits that are fitted with additional insulation, laid upon the bulkhead insulation, consisting of mineral wool cylinders, equipped with steel wire, having thickness of 50 mm and density of 100 kg/m³.

Fire resistant A-60 Class metallic pipe penetrations through aluminium bulkheads as per following tables:

COPPER

TYPE OF TRANSITS - PIPE DIAMETER	ADDITIONAL INSULATION	TRANSIT FIXING AND NOTES
Transit SPM 39 - pipe diameter 8 mm	One layer having length of 400 mm fitted on the unexposed side	Seal fitted on the exposed or unexposed side.
Transits from SPM 39 up to SPM 157 - pipe diameter greater than 8 mm up to 110 mm	Two layers having length of 600 mm fitted on the unexposed side	Seal fitted on the exposed or unexposed side

STEEL

TYPE OF TRANSITS - PIPE DIAMETER	ADDITIONAL INSULATION	TRANSIT FIXING AND NOTES
Transit SPM 39 - pipe diameter 8 mm	One layer having length of 300 mm fitted on the unexposed side	Seal fitted on the exposed or unexposed side.
Transits from SPM 39 up to SPM 279 - pipe diameter greater than 8 mm up to 222 mm	Two layers having length of 500 mm fitted on both sides	Seal fitted on the exposed or unexposed side

Reference documents

Roxtec drawings included in CTO Report No. RS-17/B-209/E dated 2 June 2017.

Tests carried out

Tests as per CTO Report No. RS-17/B-209/E issued on 2 June 2017 according to IMO 2010 FTP Code - Annex 1 - Part 3.

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



TYPE APPROVAL CERTIFICATE
No. LAB035218CS/006

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 pipes through A or B Class divisions
<i>Type</i>	Roxtec SPM Seal on aluminium deck
<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 8, 2018. This Certificate is valid until February 7, 2023

RINA Services S.p.A.

Enrico Cabella

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TYPE APPROVAL CERTIFICATE
No. LAB035218CS/006
Enclosure - Page 1 of 2
Roxtec SPM Seal on aluminium deck
Product description

Circular pipe penetrations named SPM, composed of highly elastic EPDM rubber and fittings of stainless steel and having diameter ranging from 39 mm (type SPM 39) up to 279 mm (type SPM 279). The decks are insulated on the exposed side by means of two layers of mineral wool 30 mm thick each and having density of 130 kg/m³. The division insulation covers also the transits that may be fitted with additional insulation, on the exposed side, consisting of (mineral wool discs having the same thickness of the bulkhead insulation and /or) mineral wool cylinders, equipped with steel wire, having thickness of 50 mm and density of 100 kg/m³.

Fire resistant A-60 Class metallic pipe penetrations through steel decks as per following tables:

COPPER

TYPE OF TRANSITS - PIPE DIAMETER	ADDITIONAL INSULATION	TRANSIT FIXING AND NOTES
Transit SPM 39 - pipe diameter 8 mm	One layer having length of 400 mm	Seal fitted on the exposed or unexposed side.
Transits from SPM 39 up to SPM 157 - pipe diameter greater than 8 mm up to 110 mm	Two layers having length of 600 mm	Seal fitted on the exposed or unexposed side

STEEL

TYPE OF TRANSITS - PIPE DIAMETER	ADDITIONAL INSULATION	TRANSIT FIXING AND NOTES
Transit SPM 39 - pipe diameter 8 mm	No additional insulation	Seal fitted on the exposed or unexposed side.
Transits from SPM 39 up to SPM 279 - pipe diameter greater than 8 mm up to 222 mm	Two layers having length of 600 mm	Seal fitted on the exposed or unexposed side

Reference documents

Roxtec drawings included in CTO Report No. RS-17/B-210/E dated 2 June 2017.

Tests carried out

Tests as per CTO Report No. RS-17/B-210/E issued on 2 June 2017 according to IMO 2010 FTP Code - Annex 1 - Part 3.

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