



**TYPE APPROVAL CERTIFICATE**  
**No. LAB220921CS/001**

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

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

*Issued in Genoa on July 30, 2021. This Certificate is valid until July 29, 2026*

**RINA Services S.p.A.**

*Enrico Cabella*

**This certificate consists of this page and 1 enclosure**

**TYPE APPROVAL CERTIFICATE**  
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**Roxtec SPM**  
**ROXTEC SPM ON 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 by means of two layers of mineral wool 30 and 50 mm thick and having density of 100 kg/m<sup>3</sup>. The division insulation covers also the transits that may be fitted with additional insulation, laid upon the bulkhead insulation, consisting of mineral wool discs having the same thickness of the bulkhead insulation and /or mineral wool cylinders equipped with steel wire.

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

**COPPER**

TYPE OF TRANSITS - PIPE DIAMETER	ADDITIONAL INSULATION	TRANSIT FIXING AND NOTES
Transits from SPM 39 up to SPM 81 - pipe diameter from 12 mm up to 45 mm	Mineral wool disc having width of 100 mm and mineral wool cylinder having length of 400 mm and thickness of 50 mm	Seal fitted on the exposed or unexposed side.
Transits from SPM 81 up to SPM 138 - pipe diameter greater than 45 mm up to 92 mm	Mineral wool disc having width of 200 mm and mineral wool cylinder having length of 600 mm and thickness of 50 mm	Seal fitted on the exposed or unexposed side.
Transits from SPM 138 up to SPM 279 - pipe diameter greater than 92 mm up to 220 mm	Fitted on both sides and composed of mineral wool disc having width of 200 mm and mineral wool cylinder having length of 700 mm and thickness of 100 mm	Seal fitted on the exposed or unexposed side.

**TYPE APPROVAL CERTIFICATE****No. LAB220921CS/001****Enclosure - Page 2 of 5****STEEL**

TYPE OF TRANSITS - PIPE DIAMETER	ADDITIONAL INSULATION	TRANSIT FIXING AND NOTES
Transit SPM 41 - pipe diameter 12 mm	No additional insulation	Seal fitted on the unexposed side.
Transit SPM 41 - pipe diameter 16 mm	No additional insulation	Seal fitted on the exposed side. The seal fitted on the unexposed side satisfy only the requirement of the A30 Class
Transits from SPM 39 up to SPM 81 - pipe diameter from 12 mm up to 45.4 mm	Mineral wool cylinder having length of 300 mm and thickness of 50 mm	Seal fitted on the exposed or unexposed side
Transits from SPM 81 up to SPM 138 - pipe diameter greater than 45.4 mm up to 92 mm	Mineral wool disc having width of 200 mm and mineral wool cylinder having length of 400 mm and thickness of 50 mm	Seal fitted on the exposed side.
Transits from SPM 138 up to SPM 279 - pipe diameter greater than 92 mm up to 220 mm	Fitted on both sides and composed of mineral wool disc having width of 200 mm and mineral wool cylinder having length of 500 mm and thickness of 100 mm	Seal fitted on the exposed or unexposed side.

**Reference documents**

Roxtec drawings included in SP Reports No. 5P03451 dated 3 November 2015, No. 5P08346 dated 21 December 2015, No. 5P05990 dated 16 November 2016, No. 5P07565 dated 20 December 2016 and DBI Report No. PGA10870A dated 13 December 2016.

**Tests carried out**

Tests as per SP Reports No. 5P03451 dated 3 November 2015, No. 5P08346 dated 21 December 2015, No. 5P05990 dated 16 November 2016, No. 5P07565 dated 20 December 2016 and DBI Report No. PGA10870A dated 13 December 2016 issued according to IMO 2010 FTP Code - Annex 1 - Part 3.

**ROXTEC SPM ON 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). If the deck is insulated by means of a layer of mineral wool having thickness of 50 mm and density of 100 kg/m<sup>3</sup>, the transits are to be fitted with additional insulation having density of 100 kg/m<sup>3</sup>, consisting of mineral wool cylinders equipped with steel wire placed in contact with the deck insulation. In case of deck insulated by means of two layers of mineral wool (first layer 50 mm thick and density of 120 kg/m<sup>3</sup> and second layer with steel wire, 30 mm thick and density of 125 kg/m<sup>3</sup>) the additional insulation, consisting of discs of the same insulating materials of the deck and mineral wool cylinder equipped with steel wire having density of 100 kg/m<sup>3</sup> may be required.

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

**STEEL - deck insulated by means of one layer of mineral wool**

TYPE OF TRANSITS - PIPE DIAMETER	ADDITIONAL INSULATION	TRANSIT FIXING
Transits from SPM 41 up to SPM 81 - pipe diameter from 12 mm up to 45.4 mm	Mineral wool cylinder having length of 300 mm and thickness of 50 mm	The transits may be bolted to the deck on the side exposed or the side unexposed to the fire.
Transits from SPM 81 up to SPM 138 - pipe diameter greater than 45.4 mm up to 92 mm	Mineral wool cylinder having length of 400 mm and thickness of 50 mm	The transits may be bolted to the deck on the side exposed or the side unexposed to the fire.
Transits from SPM 138 up to SPM 279 - pipe diameter greater than 92 mm up to 220 mm	Mineral wool cylinder having length of 600 mm and thickness of 100 mm	The transits may be bolted to the deck on the side exposed or the side unexposed to the fire.

**COPPER - deck insulated by means of one layer of mineral wool**

TYPE OF TRANSITS - PIPE DIAMETER	ADDITIONAL INSULATION	TRANSIT FIXING
Transits SPM 41 pipe diameter 12 mm	Mineral wool cylinder having length of 400 mm and thickness of 50 mm	The transits are to be bolted to the deck on the side exposed to the fire.
Transits from SPM 41 up to SPM 279 - pipe diameter greater than 12 mm up to 222 mm	Fitted on both sides and composed of mineral wool cylinder having length of 700 mm and thickness of 100 mm	The transits are to be bolted to the deck on the side exposed to the fire.

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**STEEL - deck insulated by means of two layers of mineral wool**

TYPE OF TRANSITS - PIPE DIAMETER	ADDITIONAL INSULATION	TRANSIT FIXING AND NOTES
Transits from SPM 39 up to SPM 69 - pipe diameter from 8 mm up to 36 mm	No additional insulation	Seal fitted on the unexposed side.
Transits SPM 81 - pipe diameter 45 mm	No additional insulation	Seal fitted on the unexposed side. This transit satisfy only the requirement of the A30 Class

**COPPER - deck insulated by means of two layers of mineral wool**

TYPE OF TRANSITS - PIPE DIAMETER	ADDITIONAL INSULATION	TRANSIT FIXING AND NOTES
Transits from SPM 39 up to SPM 41 - pipe diam. from 8 up to 16 mm	Mineral wool cylinder having length of 400 mm and thickness of 50 mm	Seal fitted on the unexposed side.
Transits from SPM 41 up to SPM 138 - pipe diameter greater than 16 mm up to 92 mm	Mineral wool disc having width 100 mm and mineral wool cyl., 100 mm thick and length of 800 mm	Seal fitted on the unexposed side.
Transits from SPM 138 up to SPM 196 - pipe diameter greater than 92 up to 143 mm	Mineral wool disc having width 100 mm and mineral wool cyl., 100 mm thick and length of 1200 mm	Seal fitted on the unexposed side.
Transits from SPM 196 up to SPM 279 - pipe diameter greater than 143 mm up to 222 mm	Mineral wool cylinder having length of 700 mm and thickness of 100 mm fitted on both sides	Seal fitted on the unexposed side.

Fire resistant A-0 Class metallic pipe penetrations through steel decks as per following table:

**STEEL - deck uninsulated**

TYPE OF TRANSITS - PIPE DIAMETER	TRANSIT INSULATION	TRANSIT FIXING AND NOTES
Transits from SPM 39 up to SPM 138 - pipe diameter from 12 mm up to 92 mm	Two layers of mineral wool, around the pipe (50 mm thick – density 120 kg/m <sup>3</sup> and 30 mm thick – density 125 kg/m <sup>3</sup> ), having width of 100 mm from the penetration edge	Seal fitted on the exposed side.
Transits from SPM 138 up to SPM 279 - pipe diameter greater than 92 up to 222 mm	Two layers of mineral wool, around the pipe (50 mm thick – density 120 kg/m <sup>3</sup> and 30 mm thick – density 125 kg/m <sup>3</sup> ), having width of 200 mm from the penetration edge	Seal fitted on the exposed side.

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**Reference documents**

Roxtec drawings included in:

- SP Reports No. 5P03457 dated 12 November 2015, No. 5P08343 dated 21 December 2015, No. 5P08395 dated 17 March 2016, No. 6P05989 dated 24 October 2016 and No. 6P07563 dated 20 December 2016.
- CTO Report No. RS-17/B-177/E dated 26 May 2017

**Tests carried out**

Tests as per SP Reports No. 5P03457 dated 12 November 2015, No. 5P08343 dated 21 December 2015, No. 5P08395 dated 17 March 2016, No. 6P05989 dated 24 October 2016 and No. 6P07563 dated 20 December 2016 and CTO Report No. RS-17/B-177/E dated 26 May 2017 issued 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 July 30, 2021**

**File Allegato/Attached file**