



TYPE APPROVAL CERTIFICATE
No. LAB287519CS/001

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 RS and RS OMD (A0 steel 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 January 9, 2020. This Certificate is valid until January 8, 2025

RINA Services S.p.A.

Enrico Cabella

This certificate consists of this page and 1 enclosure

TYPE APPROVAL CERTIFICATE
No. LAB287519CS/001
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Roxtec RS sealing system (bulkhead A-0)

Product description

Circular stainless steel penetrations seals type RS and RS OMD for steel, CuNi and copper pipes having size ranging from type RS 23 up to type RS 644 through A Class steel bulkheads. The transits from type RS 23 up to type RS 100 may be welded or bolted whereas the transits from type RS 100 up to type RS 644 are to be welded to the bulkhead plate.

Field of application

Fire resistant A-0 Class pipe penetrations through steel bulkheads as per following tables:

STEEL PIPES

Type of transits	Pipes diameter (mm)	Additional insulation	Transit fixing and notes	Reports
From RS 23 up to RS 100	from 6 up to 70	-	The penetration is fixed to the bulkhead plate in the middle.	RS-18/B-293/E 8P07094
From RS 100 up to RS 150	from 70 up to 114	Mineral wool cylinder, two layers, 45+45 mm thick, having density of 100 kg/m ³ and length of 450 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on both sides of the bulkhead.	PGA11301A
From RS 150 up to RS 400	from 114 up to 330	Mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 1200 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on the bulkhead insulated side.	4P06068
From RS 400 up to RS 644	from 330 up to 558	Mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 600 mm	The penetration is fixed to the bulkhead plate on the bulkhead insulated side; the additional insul. is fitted on both sides of the bulkhead.	RS-18/B-485/E

In case of transits from RS 150 up to RS 644 the bulkhead is to be insulated, for at least 250 mm around the transits, by means of two layers of mineral wool (certified non combustible in compliance to 2010 FTP Code) 45+45 mm thick and having density of 100 kg/m³

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COPPER PIPES

Type of transits	Pipes diameter (mm)	Additional insulation	Transit fixing and notes	Reports
From RS 23 up to RS 100	from 6 up to 70	-	The penetration is fixed to the bulkhead plate in the middle.	RS-18/B-293/E 8P07094
From RS 100 up to RS 150	from 70 up to 108	Mineral wool, two layers 50+30 mm thick having density of 100 kg/m ³ and width of 150 mm all around and mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 700 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on the bulkhead insulated side.	4P08662

In case of transits from RS 100 up to RS 150 the bulkhead is to be insulated, for at least 250 mm around the transits, by means of two layers of mineral wool (certified non combustible in compliance to 2010 FTP Code) 50+30 mm thick and having density of 100 kg/m³

CUNI PIPES

Type of transits	Pipes diameter (mm)	Additional insulation	Transit fixing and notes	Reports
From RS 23 up to RS 100	from 6 up to 70	-	The penetration is fixed to the bulkhead plate in the middle.	RS-18/B-293/E 8P07094
From RS 100 up to RS 150	from 70 up to 108	Mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 600 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on the bulkhead insulated side.	PGA10799A
From RS 150 up to RS 350	from 108 up to 270	Mineral wool, two layers 50+40 mm thick having density of 125 kg/m ³ and width of 250 mm all around and mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 1000 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on both sides of the bulkhead.	6P04351

In case of transits from RS 100 up to RS 350 the bulkhead is to be insulated, for at least 250 mm around the transits, by means of two layers of mineral wool (certified non combustible in compliance to 2010 FTP Code) 50+40 mm thick and having density of 125 kg/m³

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Reference documents

Roxtec drawings enclosed to the CTO test reports No. RS-18/B-293/E dated 13/9/2018 and No. RS-18/B-485/E dated 10/12/2018 and RISE-SP test reports No. 8P07094 dated 23/9/2019, No. 4P06068 dated 17/1/2015, No. 4P08662 dated 8/6/2015 and No. 6P04351 dated 28/6/2016 and DBI test report No. PGA10799A dated 24/5/2016.

Roxtec drawings No. S1546995 Rev. A dated 30/8/2019, No. S1546997 Rev. A dated 19/12/2019 and No. S1546874 Rev. A dated 18/12/2019 approved on 9/1/2020 respectively with endorsement Nos. LABS-1968, LABS-1963 and LABS-1969.

Tests carried out

Tests as per CTO Report Nos. RS-18/B-293/E dated 13/9/2018 and RS-18/B-485/E dated 10/12/2018 and RISE-SP test reports Nos. 8P07094 dated 23/9/2019, 4P06068 dated 17/1/2015, 4P08662 dated 8/6/2015 and 6P04351 dated 28/6/2016 and DBI test report No. PGA10799A dated 24/5/2016 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 9/01/2020

File Allegato/Attached file



TYPE APPROVAL CERTIFICATE
No. LAB287519CS/002

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 RS and RS OMD (A0 steel 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)

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Enrico Cabella

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TYPE APPROVAL CERTIFICATENo. **LAB287519CS/002**

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Roxtec RS sealing system (deck A-0)**Product description**

Circular stainless steel penetrations seals type RS and RS OMD for steel, CuNi and copper pipes having size ranging from type RS 23 up to type RS 644 through A Class steel decks. The transits from type RS 23 up to type RS 100 may be welded or bolted whereas the transits from type RS 100 up to type RS 644 are to be welded to the deck plate.

Field of application

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

STEEL PIPES

Type of transits	Pipes diameter (mm)	Additional insulation	Transit fixing and notes	Reports
From RS 23 up to RS 100	from 6 up to 67	-	The penetration is fixed to the deck plate in the middle.	PGA11302A
From RS 100 up to RS 250	from 67 up to 204	Mineral wool cylinder, two layers, 45+45 mm thick, having density of 100 kg/m ³ and length of 600 mm	The penetration is fixed to the deck plate in the middle; the additional insul. is fitted on the deck insulated side.	PGA11302A
From RS 250 up to RS 400	from 204 up to 330	Mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 600 mm	The penetration is fixed to the deck plate on the insulated side; the additional insul. is fitted on the deck insulated side.	4P07023
From RS 400 up to RS 644	from 330 up to 558	Mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 900 mm	The penetration is fixed to the deck plate on the uninsulated side; the additional insul. is fitted on the deck insulated side.	RS-18/B-484/E

In case of transits from RS 250 up to RS 644 the deck is to be insulated, for at least 250 mm around the transits, by means of two layers of mineral wool (certified non combustible in compliance to 2010 FTP Code) 50+30 mm thick and having density of 100 kg/m³

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COPPER PIPES

Type of transits	Pipes diameter (mm)	Additional insulation	Transit fixing and notes	Reports
RS 43	22	-	The penetration is fixed to the deck plate in the middle.	RS-18/B-292/E
From RS 43 up to RS 100	from 22 up to 54	Mineral wool cylinder, two layers, 45+45 mm thick, having density of 100 kg/m ³ and length of 600 mm	The penetration is fixed to the deck plate in the middle; the additional insul. is fitted on the deck insulated side.	PGA11302A
From RS 100 up to RS 300	from 54 up to 225	Mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 1200 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on the deck insulated side.	6P02249

In case of transits from RS 100 up to RS 300 the deck is to be insulated, for at least 250 mm around the transits, by means of two layers of mineral wool (certified non combustible in compliance to 2010 FTP Code) 50+30 mm thick and having density of 125 kg/m³

CUNI PIPES

Type of transits	Pipes diameter (mm)	Additional insulation	Transit fixing and notes	Reports
From RS 25 up to RS 50	from 10 up to 25	-	The penetration is fixed to the deck plate in the middle.	PGA10800A
From RS 50 up to RS 100	from 25 up to 57	Mineral wool cylinder, one layer, 30 mm thick, having density of 100 kg/m ³ and length of 100 mm	The penetration is fixed to the deck plate in the middle; the additional insul. is fitted on the deck insulated side.	PGA10800A
From RS 100 up to RS 150	from 54 up to 108	Mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 300 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on the deck insulated side.	PGA10800A
From RS 150 up to RS 350	from 108 up to 270	Mineral wool, two layers 50+30 mm thick having density of 125 kg/m ³ and width of 150 mm all around and mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 600 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on both sides of the deck.	PGA10800A

The deck is to be insulated, for at least 250 mm around the transits, by means of two layers of mineral wool (certified non combustible in compliance to 2010 FTP Code) 50+30 mm thick and having density of 125 kg/m³

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Reference documents

Roxtec drawings enclosed to the DBI test reports Nos PGA11302A dated 16/1/2019 and PGA10800A dated 26/5/2016 and CTO test reports Nos. RS-18/B-292/E dated 13/9/2018 and RS-18/B-484/E dated 10/12/2018 and RISE-SP test reports Nos. 4P02249 dated 17/8/2016 and 4P07023 dated 4/2/2015.

Roxtec drawings No. S1546994 Rev. A dated 30/8/2019, No. S1546997 Rev. A dated 19/12/2019 and No. S1546874 Rev. A dated 18/12/2019 approved on 9/1/2020 respectively with endorsement Nos. LABS-1967, LABS-1963 and LABS-1969.

Tests carried out

Tests as per DBI test reports Nos No. PGA11302A dated 16/1/2019 and PGA10800A dated 26/5/2016 and CTO test reports Nos. RS-18/B-292/E dated 13/9/2018 and RS-18/B-484/E dated 10/12/2018 and RISE-SP test reports Nos. 4P02249 dated 17/8/2016 and 4P07023 dated 4/2/2015 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
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- 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 9/01/2020

File Allegato/Attached file



TYPE APPROVAL CERTIFICATE
No. LAB287519CS/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 pipes through A or B Class divisions
<i>Type</i>	Roxtec RS and RS OMD (A60 steel 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)

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Roxtec RS sealing system (bulkhead A-60)**Product description**

Circular stainless steel penetrations seals type RS and RS OMD for steel, CuNi and copper pipes having size ranging from type RS 23 up to type RS 644 through A Class steel bulkheads. The transits from type RS 23 up to type RS 100 may be welded or bolted whereas the transits from type RS 100 up to type RS 644 are to be welded to the bulkhead plate.

Field of application

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

STEEL PIPES

Bulkhead insulated by means of two layers of mineral wool (certified non combustible in compliance to 2010 FTP Code) 45+45 mm thick and having density of 100 kg/m³

Type of transits	Pipes diameter (mm)	Additional insulation	Transit fixing and notes	Reports
From RS 23 up to RS 25	6	-	The penetration is fixed to the bulkhead plate in the middle.	RS-18/B-485/E 4P06068
From RS 25 up to RS 68	from 6 up to 28	Mineral wool cylinder, two layers, 45+45 mm thick, having density of 100 kg/m ³ and length of 200 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on the bulkhead insulated side.	RS-19/B-035/E
From RS 68 up to RS 150	from 28 up to 114	Mineral wool cylinder, two layers, 30+30 mm thick, having density of 100 kg/m ³ and length of 600 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on the bulkhead insulated side.	PX05454
From RS 150 up to RS 400	from 114 up to 330	Mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 1200 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on the bulkhead insulated side.	4P06068
From RS 400 up to RS 644	from 330 up to 558	Mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 600 mm	The penetration is fixed to the bulkhead plate on the bulkhead insulated side; the additional insul. is fitted on both sides of the bulkhead.	RS-18/B-485/E

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COPPER PIPES

Bulkhead insulated by means of two layers of mineral wool (certified non combustible in compliance to 2010 FTP Code) 50+30 mm thick and having density of 100 kg/m³

Type of transits	Pipes diameter (mm)	Additional insulation	Transit fixing and notes	Reports
From RS 23 up to RS 50	from 6 up to 28	Mineral wool cylinder, one layer, 50 mm thick, having density of 100 kg/m ³ and length of 300 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on the bulkhead insulated side.	RS-18/B-485/E 4P06068
From RS 50 up to RS 150	from 28 up to 108	Mineral wool, two layers 50+30 mm thick having density of 100 kg/m ³ and width of 150 mm all around and mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 700 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on the bulkhead insulated side.	4P08662

CUNI PIPES

Bulkhead insulated by means of two layers of mineral wool (certified non combustible in compliance to 2010 FTP Code) 50+40 mm thick and having density of 125 kg/m³

Type of transits	Pipes diameter (mm)	Additional insulation	Transit fixing and notes	Reports
RS 25	10	Mineral wool cylinder, one layer, 30 mm thick, having density of 100 kg/m ³ and length of 100 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on the bulkhead insulated side.	6P04351
From RS 25 up to RS 100	from 10 up to 57	Mineral wool cylinder, one layer, 50 mm thick, having density of 100 kg/m ³ and length of 300 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on the bulkhead insulated side.	6P04351
From RS 100 up to RS 350	from 57 up to 270	Mineral wool, two layers 50+40 mm thick having density of 125 kg/m ³ and width of 250 mm all around and mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 1000 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on on both sides of the bulkhead.	6P04351

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Reference documents

Roxtec drawings enclosed to the CTO test reports No. RS-18/B-485/E dated 10/12/2018 and No. RS-19/B-035/E dated 25/2/2019 and RISE-SP test reports No. 4P06068 dated 17/1/2015, No. 4P08662 dated 8/6/2015, No. 6P04351 dated 28/6/2016 and No. PX05454 dated 8/9/2011.

Roxtec drawings No. S1546875 Rev. A dated 18/12/2019, No. S1546996 Rev. A dated 18/12/2019 and No. S1546993 Rev. A dated 30/8/2019 approved on 9/1/2020 respectively with endorsement Nos. LABS-1968, LABS-1964 and LABS-1965.

Tests carried out

Tests as per CTO test reports No. RS-18/B-485/E dated 10/12/2018 and No. RS-19/B-035/E dated 25/2/2019 and RISE-SP test reports No. 4P06068 dated 17/1/2015, No. 4P08662 dated 8/6/2015, No. 6P04351 dated 28/6/2016 and No. PX05454 dated 8/9/2011 issued according to IMO 2010 FTP Code and IMO Res. 754(18).

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 9/01/2020

File Allegato/Attached file



TYPE APPROVAL CERTIFICATE
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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 RS and RS OMD (A60 steel 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)

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TYPE APPROVAL CERTIFICATE
No. LAB287519CS/004
Enclosure - Page 1 of 3
Roxtec RS sealing system (deck A-60)

Product description

Circular stainless steel penetrations seals type RS and RS OMD for steel, CuNi and copper pipes having size ranging from type RS 23 up to type RS 644 through A Class steel decks. The transits from type RS 23 up to type RS 100 may be welded or bolted whereas the transits from type RS 100 up to type RS 644 are to be welded to the deck plate.

Field of application

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

STEEL PIPES

Deck insulated by means of two layers of mineral wool (certified non combustible in compliance to 2010 FTP Code) 50+30 mm thick and having density of 125 kg/m³

Type of transits	Pipes diameter (mm)	Additional insulation	Transit fixing and notes	Reports
From RS 23 up to RS 75	from 6 up to 54	-	The penetration is fixed to the deck plate in the middle.	RS-18/B-484/E PGA10871A
From RS 75 up to RS 150	from 54 up to 114	Mineral wool cylinder, 50 mm thick, having density of 100 kg/m ³ and length of 400 mm	The penetration is fixed to the deck plate on the insulated side; the additional insul. is fitted on the deck insulated side.	4P07023
From RS 150 up to RS 400	from 114 up to 330	Mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 600 mm	The penetration is fixed to the deck plate on the insulated side; the additional insul. is fitted on the deck insulated side.	4P07023
From RS 400 up to RS 644	from 330 up to 558	Mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 900 mm	The penetration is fixed to the deck plate on the uninsulated side; the additional insul. is fitted on the deck insulated side.	RS-18/B-484/E

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COPPER PIPES

Deck insulated by means of two layers of mineral wool (certified non combustible in compliance to 2010 FTP Code) 50+30 mm thick and having density of 125 kg/m³

Type of transits	Pipes diameter (mm)	Additional insulation	Transit fixing and notes	Reports
From RS 25 up to RS 43	from 6 up to 22	Mineral wool cylinder, 30 mm thick, having density of 100 kg/m ³ and length of 200 mm	The penetration is fixed to the deck plate in the middle.	RS-18/B-292/E
From RS 43 up to RS 150	from 22 up to 108	Mineral wool cylinder, 50 mm thick, having density of 100 kg/m ³ and length of 600 mm	The penetration is fixed to the deck plate on the insulated side; the additional insul. is fitted on the deck insulated side.	09-346-E
From RS 150 up to RS 300	from 108 up to 225	Mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 1200 mm	The penetration is fixed to the bulkhead plate in the middle; the additional insul. is fitted on the deck insulated side.	6P02249

CUNI PIPES

Deck insulated by means of two layers of mineral wool (certified non combustible in compliance to 2010 FTP Code) 50+30 mm thick and having density of 125 kg/m³

Type of transits	Pipes diameter (mm)	Additional insulation	Transit fixing and notes	Reports
From RS 25 up to RS 50	from 10 up to 25	-	The penetration is fixed to the deck plate in the middle.	PGA10800A
From RS 50 up to RS 100	from 25 up to 57	Mineral wool cylinder, 30 mm thick, having density of 100 kg/m ³ and length of 100 mm	The penetration is fixed to the deck plate in the middle; the additional insul. is fitted on the deck insulated side.	PGA10800A
From RS 100 up to RS 150	from 57 up to 108	Mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 300 mm	The penetration is fixed to the deck plate in the middle; the additional insul. is fitted on the deck insulated side.	PGA10800A
From RS 150 up to RS 350	from 108 up to 270	Mineral wool cylinder, two layers, 50+50 mm thick, having density of 100 kg/m ³ and length of 600 mm	The penetration is fixed to the deck plate in the middle; the additional insul. is fitted on the deck insulated side.	PGA10800A

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Reference documents

Roxtec drawings enclosed to the DBI test reports Nos. PGA10871A dated 16/1/2018 and PGA10800A dated 26/5/2016 and CTO test reports Nos. RS-18/B-292/E dated 13/9/2018 and RS-18/B-484/E dated 10/12/2018 and RISE-SP test reports Nos. 4P02249 dated 17/8/2016 and 4P07023 dated 4/2/2015.

Roxtec drawings No. S1546875 Rev. A dated 18/12/2019, No. S1546996 Rev. A dated 18/12/2019 and No. S1546988 Rev. A dated 30/8/2019 approved on 9/1/2020 respectively with endorsement Nos. LABS-1970, LABS-1964 and LABS-1966.

Tests carried out

Tests as per DBI test reports Nos. PGA10871A dated 16/1/2018 and PGA10800A dated 26/5/2016 and CTO test reports Nos. RS-18/B-292/E dated 13/9/2018 and RS-18/B-484/E dated 10/12/2018 and RISE-SP test reports Nos. 4P02249 dated 17/8/2016 and 4P07023 dated 4/2/2015 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
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