



Indian Register of Shipping

CERTIFICATE NO: 2022TAC104

TYPE APPROVAL CERTIFICATE

*This is to certify that the product is in accordance with the applicable rules/standards/codes as described below.
The product is considered to be suitable for use in marine applications and is **retained** in the list of approved products.*

MANUFACTURER	Roxtec International AB
MANUFACTURING WORKS	Unit 1: Rombvagen 2, 371 65, Lyckeby, Karlskrona, Sweden Unit 2: Roxtec India Pvt. Ltd., Plot No. 307, Udyog Vihar, Phase - IV, Gurgaon - 122 015, Haryana, India.
REGISTERED OFFICE	Rombvagen 2371 65, Lyckeby, Karlskrona, Sweden
PRODUCT NAME	CABLE AND PIPE PENETRATION
MODEL NO. / TRADE NAME	Roxtec Sealing System (For Models See Annexure I)
PRODUCT DESCRIPTION	Roxtec Sealing System with multidiameter technology (R, S and RS Series) for use in shipboard deck and bulkhead penetrations. For details, See Annexure I
APPLICABLE RULES/STANDARDS/CODES	-IRS Rules and Regulations for the Construction and Classification of Steel Ships -IMO 2010 FTP Code
CONDITIONS OF APPROVAL	See Annexure-II
VALIDITY	The Certificate is valid until 23/10/2027

ISSUE DATE: 14/12/2022

PLACE: MUMBAI


Premjit Panigrahi
Sr. Principal Surveyor

Previous Certificate No : 2021TAC045 dated : 04/08/2021

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ANNEXURE-I
(TO CERT. NO. 2022TAC104 DATED 14TH DECEMBER 2022)

Product Description and Limitations

I) R Series (Round expansion frame with square packing space) (Steel – Deck and Bulkhead – For Electrical Cables and Pipes) (Types covered: R and R X)

It consists of a steel sleeve, bolted (including SL A), welded or attached through expansion (R X) to a steel section for use as a single or multiple cable or pipe penetration system. Sleeve is fitted with a Roxtec R frame in sizes 50 – 200 for electrical cables transits and 70 – 200 for pipe penetration transits. The R-frame is filled with Roxtec halogen free RM modules. The “SL A” sleeve is fitted unsymmetrically into the bulkhead (exposed side) and deck (exposed or unexposed side).

Maximum cable diameter: 60 mm (R-frame without SL A sleeve)
50 mm (R-frame with SL A sleeve)

II) RS Series (Round entry seal) (Steel – Deck and Bulkhead – For Electrical Cables and Pipes) (Types covered: RS, RS OMD and RS X)

It consists of a steel sleeve, bolted, welded or attached through expansion (RS X) to a steel section for use as a single cable or pipe penetration system. Sleeve is fitted with a Roxtec RS or RS OMD seal in sizes 23 – 150 for electrical cables transits and 23 – 644 for pipe penetration transits.

Maximum cable diameter: 82 mm

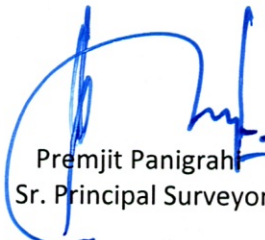
Pipe diameter as per following table:

S.No.	Pipe material	Size range (mm)	
		For bulkhead	For deck
a)	Steel pipes	6 – 558	6 – 558
b)	Copper pipes	6 – 108	6 – 225
c)	Fibre glass composite pipes	32 – 89	32 – 275
d)	Bundle pipes	For steel pipes : OD 16 – 50 For copper pipes : OD 18	
e)	Fibre glass composite FR pipes	75 – 375	75 – 375
f)	CuNi (90:10)	10 – 270	10 – 270

III) S Series (Steel – Deck and Bulkhead – For Electrical Cables and Pipes) (Types covered: S, SO, SF, SFO, SE PPS, SK, SRC (r20 and r40) and S BTB)

It consists of steel frames in sizes 1-8 and combinations thereof, welded or bolted to a steel section for use as a single or multiple cable or pipe penetration system. The S frame is filled with Roxtec halogen free RM modules. Assembled with Roxtec Wedge kit or Roxtec EMC Wedge kit.

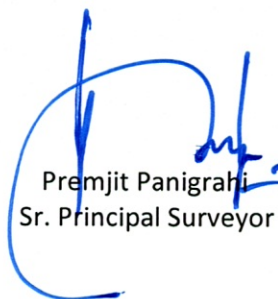
Maximum cable diameter: 86 mm


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ANNEXURE-II
(TO CERT. NO. 2022TAC104 DATED 14TH DECEMBER 2022)
TERMS AND CONDITIONS

This approval is subject to the following:

- 1) The cable and pipe penetration transits are approved for use in A-0, A-15, A-30 and A-60 steel bulkheads and decks. However, for A-0, A-15 and A-30 applications, the penetration shall be insulated as for A-60 insulation (on the penetration itself and 200 mm around) considering product prototype testing undertaken with A-60 insulation.
- 2) The bulkheads and decks are to be insulated as per the requirements of SOLAS 1974 (as amended) and the approved "Structural Fire Protection Plan". Insulation materials used are also to have valid type approval as per IMO FTP code.
- 3) The above product is to be supplied with its manual for installation and maintenance.
- 4) The product or its packing is to be marked with name of manufacturer, type designation and fire rating.
- 5) These cable and pipe penetration transits are not to be used for penetrating boundaries of tanks.
- 6) Any change in the constituents or manufacturing process affecting the approval would require re-assessment of the works for continued approval.
- 7) Any revision to the applicable reference standard/code would necessitate testing and re-approval of the above products for continued approval.


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