




# EC TYPE EXAMINATION (MODULE B) CERTIFICATE

This is to certify that:

LLOYD'S REGISTER VERIFICATION LIMITED (LRV), specified as a "notified body" under the terms of The Merchant Shipping (Marine Equipment) Regulations S.I. 1999 No. 1957, did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the essential Fire protection requirements of Marine Equipment Directive (MED) 96/98/EC as modified by Commission Directives 98/85/EC, 2001/53/EC, 2002/75/EC, 2002/84/EC, 2008/67/EC, 2009/26/EC, 2010/68/EU, 2011/75/EU, 2012/32/EU, 2013/52/EU, 2014/93/EU and 2015/559 subject to any conditions in the Design Appraisal Document attached hereto.

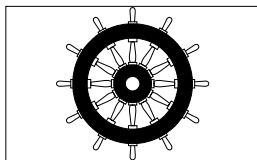
<b>Manufacturer</b>	Roxtec International AB
<b>Address</b>	Box 540 S-371 23 Karlskrona Sweden
<b>Annex A1 Item</b>	<b>A.1/3.27 - PENETRATIONS THROUGH "B" CLASS DIVISIONS (b) PIPE, DUCT, TRUNK, ETC PENETRATIONS</b>
<b>USCG Category Number</b>	<b>164.138 - PENETRATIONS THROUGH 'B' CLASS DIVISIONS BY ELECTRIC CABLES, PIPES, TRUNKS, DUCTS ETC.</b>
<b>Product Type</b>	<b>PIPE PENETRATION (STANDARD FIRE TEST)</b>
<b>Product Description</b>	Fire Resisting Plastic Pipe Penetration Seals - Type: "Roxtec Sleeve-it Penetration Seals" for applications in B-15 Class Bulkheads
<b>Specified Standard</b>	IMO Res. MSC.61 (67)-(FTP Code) Annex 1 Part 3 IMO MSC/Circ.1120 IMO Res. MSC.307(88)-(2010 FTP Code) Section 8

The attached Design Appraisal Document (schedule) forms part of this certificate. This certificate remains valid unless cancelled or revoked, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

Date of issue	19 May 2016	Expiry date	18 May 2021
Certificate No.	MED 1650200	Signed	
Sheet No	1 of 4	Name	S. Abraham For and on behalf of Lloyd's Register Verification LRV EC Distinguishing No. 0038

Note:

This certificate is not valid for equipment; the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify the notified body named on this certificate of any modification or changes to the equipment in order to obtain a valid Certificate.



Subject to compliance with the conditions in the attached Design Appraisal Document (schedule), which forms part of this certificate, and those of Articles 10.1(i) and 11 of the Directive, the Manufacturer is allowed to affix the "Mark of Conformity" to the Product described herein.

yy = Last two digits of year mark affixed.

This product has been assigned a U.S. Coast Guard Module B number:

**USCG Module B number: 164.138/EC0038**

## USCG-EU MRA

to note type approval to Module B only as it pertains to obtaining U. S. Coast Guard approval as allowed by the "Corrigendum to Council Decision 2004/425/EC of 21 April 2004 on the conclusion of an Agreement between the European Community and the United States of America on the mutual recognition of certificates of conformity for marine equipment."

This certificate is issued under the authority of the MCA.

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**DESIGN APPRAISAL DOCUMENT**

Date 29 July 2016	Quote this reference on all future communications SOUTSO/SFS/TA/SA/WP25862379
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**ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. MED 1650200**

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions and European Union legislation for the EC Type Examination of Marine Equipment for use on Merchant Ships Registered in the European Economic Area.

This Design Appraisal Document (schedule) forms part of the Certificate.

**APPROVAL DOCUMENTATION**

VTT Technical Research Centre, Espoo, Finland, Fire Test Report No: VTT-S-5026-10 dated 10 February 2011, and VTT Technical Assessment Report No: VTT-S-6599-10 dated 27 August 2010.

**CONDITIONS OF CERTIFICATION**

1. When used in conjunction with an approved B-15 Class bulkhead panel system
2. Roxtec Sleeve-it Pipe penetration Seal consists of: a self-adhesive intumescent strip material fitted around the plastic pipe and enclosed within a (0.7mm thick x 60mm deep) stainless steel casing. The penetration is bolted to the panel system using 5mm x 30mm long steel threaded bolts, nuts and steel washers. The specifications for the intumescent materials used with Sleeve-it pipe penetrations for the different types and sizes of plastic pipes are as described in Table 2 below
3. The positions of the Sleeve-it pipe penetrations and the maximum fire rating achievable for the different types and diameter of plastic pipes when penetrating B-15 bulkheads are as described in Table 1 below

**Table 1: Tested arrangements in B-15 Class bulkheads**

Pipe Material	Maximum Pipe Nominal Diameter	Maximum Rating achievable	Position of Sleeve-it pipe penetrations when fitted in steel bulkheads
Polyethylene (PE)	125mm	B-15	Fire exposed side or unexposed side
Polybutylene (PB)	125mm	B-15	Fire exposed side or unexposed side
Polypropylene (PPr)	Up to 110mm	B-15	Fire exposed side or unexposed side
Polypropylene (PPr)	>110mm and up to 125mm <sup>(a)</sup>	B-15	Fire exposed side and unexposed side <sup>(a)</sup>
Self extinguishing "Puretek VALSIR" Polypropylene (PPr)	20mm	B-15	Fire exposed side and unexposed side
George Fischer Multi-Layer Pipe (Polyethylene (PE)/Aluminium)	32mm	B-15	Fire exposed side or unexposed side
uPVC	16mm	B-15	Fire exposed side or unexposed side

<sup>(a)</sup> For Polypropylene (PPr) pipes of diameter exceeding 110mm and up to 125mm, Sleeve-it pipe penetrations should be fitted on both the fire exposed side and fire unexposed sides of the B-15 bulkheads.



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4. The specifications for the intumescent materials used with Sleeve-it pipe penetrations for the different types and diameters of plastic pipes are as described in Table 2 below.

**Table 2: Specifications for the intumescent materials**

Type of Plastic/Maximum tested Diameter	Type of Intumescent Material	Thickness and Width of Intumescent layer	Number of Layers	Colour Code
Polyethylene (PE)/125mm	Intumex	2.5mm, 60mm	5	Dark Grey
Polybutylene (PB)/125mm	Intumex	2.5mm, 60mm	5	Dark Grey
Polypropylene (PPr)/110mm	Intumex	2.5mm, 60mm	5	Dark Grey
Polypropylene (PPr) >110mm up to 125mm	Intumex	2.5mm, 60mm	5	Dark Grey
Self extinguishing "Puretek VALSIR" Polypropylene (PPr)/20mm	TRP 345	1.8mm, 60mm	3	Black
George Fischer Multi Layer Pipe (Polyethylene (PE)/Aluminium)/32mm	TRP 345	1.8mm, 60mm	3	Black
George Fischer Multi Layer Pipe (Polyethylene (PE)/Aluminium)/16mm	TRP 345	1.8mm, 60mm	2	Black
uPVC	TRP 345	1.8mm, 60mm	2	Black

5. Production items of the subject equipment are to be manufactured in accordance with either an approved Production Quality Assurance system (Module D), a Product-Quality assurance system (Module E) or a Product Verification Process (Module F). The wheelmark cannot be affixed to the product until a conformity assessment module is in place
6. This product has been assigned a U.S. Coast Guard Module B number USCG Approval Category 164.138/EC0038 to note type approval to Module B only as it pertains to obtaining U. S. Coast Guard approval as allowed by the "Corrigendum to Council Decision 2004/425/EC of 21 April 2004 on the conclusion of an Agreement between the European Community and the United States of America on the mutual recognition of certificates of conformity for marine equipment"

In those instances where the Notified Body conducting the conformity assessment in accordance with either Module D, E or F of the Marine Equipment Directive is not Lloyd's Register Verification Ltd., such Notified Body would use the above U.S. Coast Guard Module B number to provide the manufacturer with the U.S. Coast Guard approval number by noting it on the Certificate of Conformity, thereby authorizing the manufacturer to mark the product accordingly

Note: For products placed on board U.S. flagged ships there is no declaration of conformity required to meet U.S. Coast Guard requirements

7. Each item, batch or lot of the equipment is to be issued with a "Declaration of Conformity" and have the "Mark of Conformity" affixed after a conformity assessment module is in place



Lloyd's  
Register

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Issue number 1

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#### ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. MED 1650200

##### PLACES OF PRODUCTION

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Sweden

Saji Abraham  
Senior Specialist  
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Southampton Technical Support Office, Marine & Offshore  
For and on behalf of Lloyd's Register Verification  
**LRV EC Distinguishing No. 0038**