



中国船级社  
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.  
GB21PTB00023

型式认可证书  
CERTIFICATE OF TYPE APPROVAL

兹证明本证书所述制造厂具备按照下列标准的要求生产本证书所列产品的能力和条件。

This is to certify that the manufacturer stated in the certificate meets the requirements of the standards listed below and is available with the ability and conditions to produce the products described in the certificate.

制造厂/Manufacturer

Roxtec International AB

地址/Address

Box 540,S-37123 Karlskrona,Sweden

产品名称/Product

贯穿件、贯穿装置  
Division Penetrations  
管路贯穿装置  
Pipe Penetrations

附加标志/Notations

无/Nil.

认可标准/Approval Standard

- IMO 2010年FTP规则第3部分  
IMO 2010 FTP Code Part 3
- 1974年SOLAS公约及其修正案第II-2章第3条和第9条  
Regulations 3 and 9, Chapter II-2 of 1974 SOLAS Convention, as Amended

用于/Intended for

船舶与海上设施/Ships and Offshore Installations



证书有效期至/ This Certificate is valid until 2026年01月19日/ Jan. 19,2026

发证机构/ Issued by 中国船级社哥德堡办事处  
CCS Gothenburg Office

签发日期/ Date 2022年11月15日  
Nov. 15,2022

本证书根据中国船级社规范和相关规定签发。所有证书页为一个整体，必须同时使用。纸质证书每页均须由本社盖章方为有效，电子证书含数字签名方为有效，本证书复印件无效。任何单位和个人不应摘录或节选本证书的部分内容。有关方对所持证书的真实性有疑问时，可以向本社检验机构咨询。This Certificate is issued pursuant to the Rules of the Society and related regulation. All pages of the certificate are taken as a whole and are used simultaneously. No paper certificate page is valid without bearing the stamp of the Society, no electronic certificates is valid without the digital signature, and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.



Form No: T01.

联系方式/Contact Us, 见本社官方网站/See official web site of the Society (<http://www.ccs.org.cn>)

UTN:P022-07724017

**产品明细/Product Description****管路贯穿装置/Pipe Penetrations (M0001)**

名称/Name	属性(值)/Value	单位/Unit
型号/Type	Roxtec Sleeve-it™ Fire penetration seal/Waterproof penetration seal	
规格/Specification	SLEEV-IT WT series, MAR16M-MAR324M SLEEV-IT FC series, MAR16M-MAR225M	
使用限制/Installation Limitations	Steel Bulkhead and Deck, See Additional Page	
应用型式/Application Type	See Additional Page	
甲板管路贯穿耐火等级/受火面/Fire Class of Deck Pipe Penetrations /Exposed Face	See Additional Page	
舱壁管路贯穿耐火等级/受火面/Fire Class of Bulkhead Pipe Penetrations /Exposed Face	See Additional Page	
试验前试样液压试验压力(水密性)/Pressure of Hydraulic Before Test Specimen(Watertight)	Accrylic sealant/Additional EPDM seal: 0.1 / 0.3	MPa
试验前试样空气试验压力(气密性)/Pressure of Air Before Test Specimen(Airtight)	Accrylic sealant/Additional EPDM seal: 0.003 / 0.1	MPa
套管(薄片)材料/Sleeves(Sheets)	Stainless steel	
装置围板/套管包覆用隔热材料/Insulation Material Bundled for Coaming Or Spigot of Pipe Penetrations	PROMASEAL®-PL Fire prevention laminate	
密封胶/Sealant	TRP 345, a graphite filled elastomeric compound	

**批准的图纸/Approved Drawings**

图纸批准号/ Drawings Approval No. : GB18A00002, HB22PPP20013

**产品认可试验报告/ Approval Test Report**

试验报告编号/ Test Report No. : RS-21/B-241E  
 试验报告日期/ Test Report Date : 2021-06-30  
 试验单位/ Laboratory: Centrum Techniki Okretojew S.A.  
 试验单位地址/ Test Address: 65 Szczecińska 80-392 Gdańsk Poland

试验报告编号/ Test Report No. : RS-22/B-153/E  
 试验报告日期/ Test Report Date : 2022-05-04  
 试验单位/ Laboratory: Centrum Techniki Okretojew S.A.  
 试验单位地址/ Test Address: 65 Szczecińska 80-392 Gdańsk Poland

试验报告编号/ Test Report No. : RS-18/B-264/E  
 试验报告日期/ Test Report Date : 2018-09-14  
 试验单位/ Laboratory: Centrum Techniki Okretojew S.A.  
 试验单位地址/ Test Address: 65 Szczecińska 80-392 Gdańsk Poland

试验报告编号/ Test Report No. : RS-18/B-181/E  
 试验报告日期/ Test Report Date : 2018-05-07  
 试验单位/ Laboratory: Centrum Techniki Okretojew S.A.  
 试验单位地址/ Test Address: 65 Szczecińska 80-392 Gdańsk Poland

试验报告编号/ Test Report No. : RS-18/B-265/E  
 试验报告日期/ Test Report Date : 2018-09-17  
 试验单位/ Laboratory: Centrum Techniki Okretojew S.A.  
 试验单位地址/ Test Address: 65 Szczecińska 80-392 Gdańsk Poland

试验报告编号/ Test Report No. : RS-19/B-356/E  
试验报告日期/ Test Report Date : 2019-10-18  
试验单位/ Laboratory: Centrum Techniki Okretojew S.A.  
试验单位地址/ Test Address: 65 Szczecińska 80-392 Gdańsk Poland

试验报告编号/ Test Report No. : RS-19/B-423E  
试验报告日期/ Test Report Date : 2019-11-08  
试验单位/ Laboratory: Centrum Techniki Okretojew S.A.  
试验单位地址/ Test Address: 65 Szczecińska 80-392 Gdańsk Poland

试验报告编号/ Test Report No. : RS-19/B-424/E  
试验报告日期/ Test Report Date : 2019-11-27  
试验单位/ Laboratory: Centrum Techniki Okretojew S.A.  
试验单位地址/ Test Address: 65 Szczecińska 80-392 Gdańsk Poland

试验报告编号/ Test Report No. : RS-20/B-081/E  
试验报告日期/ Test Report Date : 2020-03-31  
试验单位/ Laboratory: Centrum Techniki Okretojew S.A.  
试验单位地址/ Test Address: 65 Szczecińska 80-392 Gdańsk Poland

试验报告编号/ Test Report No. : PGB10030A  
试验报告日期/ Test Report Date : 2020-07-16  
试验单位/ Laboratory: Danish Institute of Fire and Security Technology  
试验单位地址/ Test Address: Jernholmen 12 DK-2650 Hvidovre Danmark

试验报告编号/ Test Report No. : PGA10871A  
试验报告日期/ Test Report Date : 2018-01-16  
试验单位/ Laboratory: Danish Institute of Fire and Security Technology  
试验单位地址/ Test Address: Jernholmen 12 DK-2650 Hvidovre Danmark

试验报告编号/ Test Report No. : PGB10032A  
试验报告日期/ Test Report Date : 2020-07-01  
试验单位/ Laboratory: Danish Institute of Fire and Security Technology  
试验单位地址/ Test Address: Jernholmen 12 DK-2650 Hvidovre Danmark

试验报告编号/ Test Report No. : PGB10047A  
试验报告日期/ Test Report Date : 2020-11-30  
试验单位/ Laboratory: Danish Institute of Fire and Security Technology  
试验单位地址/ Test Address: Jernholmen 12 DK-2650 Hvidovre Danmark

试验报告编号/ Test Report No. : PGB10167A  
试验报告日期/ Test Report Date : 2022-03-18  
试验单位/ Laboratory: Danish Institute of Fire and Security Technology  
试验单位地址/ Test Address: Jernholmen 12 DK-2650 Hvidovre Danmark

试验报告编号/ Test Report No. : PGB10172A  
试验报告日期/ Test Report Date : 2022-06-17  
试验单位/ Laboratory: Danish Institute of Fire and Security Technology  
试验单位地址/ Test Address: Jernholmen 12 DK-2650 Hvidovre Danmark

试验报告编号/ Test Report No. : PGA11388A  
试验报告日期/ Test Report Date : 2019-08-14  
试验单位/ Laboratory: Danish Institute of Fire and Security Technology  
试验单位地址/ Test Address: Jernholmen 12 DK-2650 Hvidovre Danmark

试验报告编号/ Test Report No. : PGB10110A  
试验报告日期/ Test Report Date : 2021-04-27  
试验单位/ Laboratory: Danish Institute of Fire and Security Technology  
试验单位地址/ Test Address: Jernholmen 12 DK-2650 Hvidovre Danmark

试验报告编号/ Test Report No. : PGA11611A  
试验报告日期/ Test Report Date : 2020-01-11  
试验单位/ Laboratory: Danish Institute of Fire and Security Technology  
试验单位地址/ Test Address: Jernholmen 12 DK-2650 Hvidovre Danmark

试验报告编号/ Test Report No. : 8P04039  
试验报告日期/ Test Report Date : 2018-08-06  
试验单位/ Laboratory: RISE Research Institutes of Sweden AB  
试验单位地址/ Test Address: Brinellgatan 4 SE-504 62 BORÅS Sweden

试验报告编号/ Test Report No. : 6P02249  
试验报告日期/ Test Report Date : 2016-08-17  
试验单位/ Laboratory: SP Technical Research Institute of Sweden  
试验单位地址/ Test Address: Brinellgatan 4 SE-504 62 BORÅS Sweden

试验报告编号/ Test Report No. : 6P10022  
试验报告日期/ Test Report Date : 2017-03-07  
试验单位/ Laboratory: SP Technical Research Institute of Sweden  
试验单位地址/ Test Address: Brinellgatan 4 SE-504 62 BORÅS Sweden

试验报告编号/ Test Report No. : 8P04040  
试验报告日期/ Test Report Date : 2018-08-13  
试验单位/ Laboratory: RISE Research Institutes of Sweden AB  
试验单位地址/ Test Address: Brinellgatan 4 SE-504 62 BORÅS Sweden

试验报告编号/ Test Report No. : 8P07092  
试验报告日期/ Test Report Date : 2020-01-16  
试验单位/ Laboratory: RISE Research Institutes of Sweden AB  
试验单位地址/ Test Address: Brinellgatan 4 SE-504 62 BORÅS Sweden

试验报告编号/ Test Report No. : 180251A  
试验报告日期/ Test Report Date : 2009-05-26  
试验单位/ Laboratory: Bodycote Warringtonfire  
试验单位地址/ Test Address: Holmesfield Road Warrington WA1 2DS United Kingdom

试验报告编号/ Test Report No. : 183387A  
试验报告日期/ Test Report Date : 2009-10-23  
试验单位/ Laboratory: Exova Warringtonfire  
试验单位地址/ Test Address: Holmesfield Road Warrington WA1 2DS United Kingdom

试验报告编号/ Test Report No. : 303585A  
试验报告日期/ Test Report Date : 2011-04-07  
试验单位/ Laboratory: Exova Warringtonfire  
试验单位地址/ Test Address: Holmesfield Road Warrington WA1 2DS United Kingdom

试验报告编号/ Test Report No. : 177105A  
试验报告日期/ Test Report Date : 2009-01-06  
试验单位/ Laboratory: Bodycote Warringtonfire  
试验单位地址/ Test Address: Holmesfield Road Warrington WA1 2DS United Kingdom

试验报告编号/ Test Report No. : 325332  
试验报告日期/ Test Report Date : 2013-07-10  
试验单位/ Laboratory: Exova Warringtonfire  
试验单位地址/ Test Address: Holmesfield Road Warrington WA1 2DS United Kingdom

试验报告编号/ Test Report No. : 170080A  
试验报告日期/ Test Report Date : 2008-04-30  
试验单位/ Laboratory: Bodycote Warringtonfire  
试验单位地址/ Test Address: Holmesfield Road Warrington WA1 2DS United Kingdom

试验报告编号/ Test Report No. : 170080B  
试验报告日期/ Test Report Date : 2008-04-30  
试验单位/ Laboratory: Bodycote Warringtonfire  
试验单位地址/ Test Address: Holmesfield Road Warrington WA1 2DS United Kingdom

试验报告编号/ Test Report No. : 175486A  
试验报告日期/ Test Report Date : 2008-10-31  
试验单位/ Laboratory: Bodycote Warringtonfire  
试验单位地址/ Test Address: Holmesfield Road Warrington WA1 2DS United Kingdom

试验报告编号/ Test Report No. : 175486B  
试验报告日期/ Test Report Date : 2008-10-31  
试验单位/ Laboratory: Bodycote Warringtonfire  
试验单位地址/ Test Address: Holmesfield Road Warrington WA1 2DS United Kingdom

试验报告编号/ Test Report No. : 309638A  
试验报告日期/ Test Report Date : 2011-09-20  
试验单位/ Laboratory: Exova Warringtonfire

试验单位地址/ Test Address: Holmesfield Road Warrington WA1 2DS United Kingdom

试验报告编号/ Test Report No. : 190890A

试验报告日期/ Test Report Date : 2010-05-26

试验单位/ Laboratory: Exova Warringtonfire

试验单位地址/ Test Address: Holmesfield Road Warrington WA1 2DS United Kingdom

试验报告编号/ Test Report No. : 307171A

试验报告日期/ Test Report Date : 2011-06-17

试验单位/ Laboratory: Exova Warringtonfire

试验单位地址/ Test Address: Holmesfield Road Warrington WA1 2DS United Kingdom

试验报告编号/ Test Report No. : 309855A

试验报告日期/ Test Report Date : 2011-12-23

试验单位/ Laboratory: Exova Warringtonfire

试验单位地址/ Test Address: Holmesfield Road Warrington WA1 2DS United Kingdom

试验报告编号/ Test Report No. : 314670

试验报告日期/ Test Report Date : 2012-06-25

试验单位/ Laboratory: Exova Warringtonfire

试验单位地址/ Test Address: Holmesfield Road Warrington WA1 2DS United Kingdom

试验报告编号/ Test Report No. : 303584A

试验报告日期/ Test Report Date : 2011-04-07

试验单位/ Laboratory: Exova Warringtonfire

试验单位地址/ Test Address: Holmesfield Road Warrington WA1 2DS United Kingdom

试验报告编号/ Test Report No. : 7P02024

试验报告日期/ Test Report Date : 2017-06-08

试验单位/ Laboratory: RISE Research Institutes of Sweden AB

试验单位地址/ Test Address: Box 857 SE-501 15 BORAS Sweden

试验报告编号/ Test Report No. : LDN-08-045

试验报告日期/ Test Report Date : 2008-05-09

试验单位/ Laboratory: DNV

试验单位地址/ Test Address: Veritasveien 1,N-1322 Hovik,Norway

试验报告编号/ Test Report No. : SOU 0901586/1

试验报告日期/ Test Report Date : 2010-01-08

试验单位/ Laboratory: Lloyds Register EMEA

试验单位地址/ Test Address: Denburn House, 25 Union Terrace,Aberdeen, AB10 1NN, UK

## 认可后的产品检验方式/ Method of Product Inspection after Approval

按规范只认可不进行产品检验的产品/The product approved only in term of the rules:

认可后的产品检验由制造厂按本社批准的产品检验计划进行检验，经检验合格后由制造厂签发合格证明，并连同该产品的本社认可证书复印件一并交付用户，制造厂对产品符合公约、法规、本社规范和本社认可的标准规定负责。

After approval, product inspection should be carried out by the Manufacturer in accordance with the product inspection scheme approved by the Society. Upon satisfactory inspection, and the Quality Certificate issued by the Manufacturer should be provided to the purchaser together with the copy of the approval certificate issued by the Society. The manufacturer should take responsibility for the product being in compliance with the convention, statutory regulation, the Society rules and the standard accepted by the Society.

## 认可保持条件/ Maintenance Requirements of Approval

1. 型式认可后，如果产品及其重要零部件的设计、所用材料或制造方法有所改变，且影响到产品的主要特性、特征；或产品的性能指标有所更改，且超过认可的范围，则有关图纸和文件应经检验机构审批。并在检验机构认为必要时，经本社检验人员见证有关试验和进行检查，其结果应能证实仍符合认可条件。

After type approval, if there are changes to the design, materials used or manufacturing method of the product and important components and such changes affect major characteristics and properties of the product, or property indexes of the product are changed and exceed the scope of approval, related drawings and documents are to be examined and approved by the concerned survey office. Where deemed necessary by the survey office, the surveyor to the Society will go to witness relevant tests and conduct inspection and the results should be able to demonstrate compliance with the approval conditions.

2. 工厂的质量管理体系应保持有效运行，并且与认可时一致。如果质量管理体系发生改变，应经原体系认证机构审

核并报本社批准。

The quality management system of the factory shall be ensure effective operation, and shall be the same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.

3. 认可证书有效期内, 如果出现可能导致本社取消认可的情况, 工厂应及时采取有效的纠正措施。

Within the validity of the approval certificate, if cases occur that may cause the Society to withdraw the approval, the manufacturer should take corrective actions in a prompt and effective manner.

4. 在认可证书有效期内, 本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核, 以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。

Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.

5. 如果属于获得型式认可B 模式证书, 且无需颁发船用产品证书/等效证明文件的情况, 证书获得者应接受本社每年一次的定期审核, 定期审核日为认可证书期满之日对应的每一周年日, 检查工作应在周年日的前后三个月内进行。

If belong to the situation of the product has type approval mode B certificate, and marine product certificate/equivalent document is not necessary, those who have obtained the certificate should be subject to periodical audit every year. The date of periodical audit shall be each anniversary date which corresponds to the date of expiry of the relevant certificate and the periodical audit shall be done within a time span of three months before and after the annual surveillance date.

## 备注/Remarks

1. 本社已审核了产品厂无石棉声明, 但本社的审核不免除产品厂按照合同关系向订货方保证产品无石棉的责任。  
The declaration of asbestos-free submitted by manufacturer has been reviewed by the Society. However, liability of the manufacturer to guarantee the products are asbestos-free to purchaser under contract will not be exempted.

2. 本证书由原型式认可证书 (No. GB17T00021) 变更并换新。

This certificate is modified and renewed from the previous Type Approval Certificate No. GB17T00021.

3. 本证书认可产品应根据制造厂安装手册和批准图纸安装。

The approved products shall be installed as per the manufacuter's installation instructions and the approved drawings.

**中国船级社哥德堡办事处**

**CCS Gothenburg Office**

注: 本证书含有附页, 共2页

Note: The certificate is attached with additional 2 page(s)

## Roxtec Sleeve Pipe Penetration Seal Product Descriptions

<b>1. Bulkhead Pipe Penetrations</b>			
Pipe material	Pipe Diameter(mm)	Installation Limitations Fitting position of fire collar	Fire Class
PE	225	General application Exposed/Unexposed side	A-60
PB	15 to 160	General application Exposed/Unexposed side	A-60
PP	32 to 200	General application Exposed/Unexposed side	A-60
	20 to 169	General application Exposed/Unexposed side	A-0
ABS	16 to 225	General application Exposed/Unexposed side	A-60
PE/ALU/PE	16	General application Exposed/Unexposed side	A-60
	16 to 63	Unexposed side	A-60
PVC	20 to 160	General application Exposed/Unexposed side	A-0
	200	General application Exposed/Unexposed side	A-60
Preinsulated pipe	75 to 315	General application Exposed/Unexposed side	A-60

Note: Pipe reference list:

PB = Polybutylene

PE = Polyethylene

PP = Polypropylene (including PP, PPr and three layer PP)

PVC = Polyvinyl Chloride (including cPVC and uPVC)

PE / ALU / PE = Multilayer pipe Polyethylene/Aluminium/Polyethylene

ABS = Acrylonitrile Butadiene Styrene

Beverage multipipe = Bundle of plastic pipes covered with thermal insulation

Preinsulated pipe = Thermoplastic pipe with integrated thermal insulation

<b>2. Deck Pipe Penetrations</b>			
Pipe material	Pipe Diameter(mm)	Installation Limitations Fitting position of fire collar	Fire Class
PE	25 to 125	General application Exposed/Unexposed side	A-60
	25 to 225	Unexposed side	A-60
PB	160 to 225	General application Exposed/Unexposed side	A-60
	16 to 225	Unexposed side	A-60
PP	32 to 320	General application Exposed/Unexposed side	A-60
ABS	16 to 225	General application Exposed/Unexposed side	A-60
Beverage multipipe	100	General application Exposed/Unexposed side	A-60
PVC	16 to 315	General application Exposed/Unexposed side	A-60
	16 to 50	General application Exposed/Unexposed side	A-0
Multi pipe	100	General application Exposed/Unexposed side	A-60
Preinsulated pipe	75 to 315	General application Exposed/Unexposed side	A-60

Note: Pipe reference list as above

<b>3. Penetration seal specification</b>			
Pipe Diameter(mm)	Number of layers of intumescent		Number of collar fixing points
16	2 layers	TRP 345	2
16 to 50	3 layers	TRP 345	3
50 to 63	4 layers /3 layers	TRP 345 /PROMASEAL®-PL	3
75 to 90	4 layers	PROMASEAL®-PL	4
110 to 125	5 layers	PROMASEAL®-PL	4
125 to 169	6 layers	PROMASEAL®-PL	6
169 to 225	8 layers	PROMASEAL®-PL	8

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