



Confirmation of Product Type Approval 11/DEC/2009

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product.

This is to certify that, pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 03/DEC/2013. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until 14/AUG/2013 subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Roxtec International AB

Model Name(s): Roxtec S Series Frames in Steel Divisions

Presented to:

Roxtec International AB
Rombvagen 2
Box 540
Karlskrona
Sweden

Intended Service:

Multi and single pipe penetrations in Class A0, A15, A30 and A60 bulkheads and decks. Penetrations of watertight and gastight steel bulkheads and decks up to the specified pressure.

Description:

"Roxtec pipe sealing system with multidiameter technology" consisting of Roxtec S series frames (S, SO, SF, SFO, SR, SK, SKR, SRC r20&r40 and BTB) in sizes 1-8 and combinations thereof, bolted or welded on to the steel sections, filled with Roxtec (standard or EMC) halogen free insert modules. Assembled with Roxtec Wedge Kit or Roxtec EMC Wedge Kit.

Ratings:

A0, A15, A30 and A60 Bulkheads and Decks Watertight test pressure 6 bar (except bolted versions test pressure at 5 bar) Gastight test pressure 4 bar (except bolted versions test pressure at 2.5 bar)

Service Restrictions:

a) Outside diameter up to 76 mm for steel and copper pipes. Bundle pipes/ multi core tubes (in stainless steel and copper versions) up to 50 mm outside diameter.
b) Not for use in tank boundaries c) Unit Certification is not required for this product. If the manufacturer or purchaser's request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

a) All seal types should be installed in accordance with manufacturer's ABS approved installation drawings. b) Insulation material is to be A-60 approved type and properly installed to the satisfaction of the Surveyors. c) Refer to ABS Approved drawings S1001544, S1011073, S1018776 & 1011074

Notes / Documentation:	a) Approval of the arrangements and materials based on SINTEF Test Reports: 22N007.18A, 22N007.18C, 22N007.23C; Inspection Report Nos. MLM 020133, MLM 020400, MLM 020401, MLM 060561; SP Technical Research Institute of Sweden Report Nos: P602999, P603000; Roxtec International AB Fire Test witnessed by ABS on 15 Oct '09, report no.GB1741567; Danish Institute of Fire and Security Technology Fire Test report, file no. PG11898, serial no. 11923 b) This Product Design Assessment (PDA) is valid only for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.
Term of Validity:	This product/model is covered under Product Design Assessment (PDA) Certificate # 03-LD371631B/4-PDA, dated 04/Nov/2008. This PDA Certificate expires 14/Aug/2013. It will remain valid for 5 years from date of issue or until the Rules or specifications used in the assessment are revised (whichever occurs first). It is valid for all vessels contracted on or before the date of the Rules used in this evaluation.
ABS Rules:	2008 Steel Vessel Rules 1-1-4/7.7, 4-6-2/9.7
National Standards:	
International Standards:	SOLAS Ch. II-2, Reg. 9.3.1 (2000 Amendments); IMO Resolution A.754 (18)
Government Authority:	This PDA conforms to Transport of Canada requirements
EUMED:	
Others:	



ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.