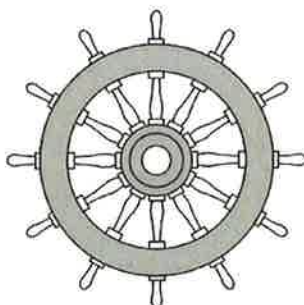


EC TYPE-EXAMINATION CERTIFICATE

according to Marine Equipment Directive (Module B)



NOTIFIED BODY 0809

This is to certify that VTT Expert Services Ltd did undertake the relevant type approval procedures for the type of equipment identified below which was found to be in compliance with the requirements of Marine Equipment Directive (MED) 2014/90/EU and Commission implementing regulation (EU) 2017/306 subject to any conditions in the schedule attached hereto.

PAROC Pro Section 100
PAROC Pro Section 140
PAROC Pro Combi 100
PAROC Pro Bend 100
PAROC Hvac Section
PAROC Hvac Combi
PAROC Hvac Bend

meet the requirements imposed in IMO 2010 FTP Code (ref. Ch. 5.2.1 and Ch. 8), Annex 1 Part 1 (IMO Resolution MSC.307(88) Annex 1 Part 1) and the provisions of Marine Equipment Directive 2014/90/EU, that apply to

non-combustible materials.

These products have been assigned a U.S. Coast Guard Module B number (**164.109 / EC0809**) to note type approval to Module B only as it pertains to obtaining U.S. Coast Guard approval as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 27th, 2004.

Manufacturer of the product is

Paroc Group Oy

The Certificate is valid until October 5, 2022 unless suspended, expired or withdrawn, provided the conditions in this certificate are complied with and the equipment remains satisfactory in service.

Espoo, October 6, 2017

This document is electronically approved



Tiina Ala-Outinen
Business Manager



Heli Välimäki
Senior Expert

Manufacturer	Paroc Group Oy Energiakuja 3 P.O.Box 240 FI-00181 Helsinki Finland.
Equipment	Item MED 1/3.13, non-combustible materials.
Products	PAROC Pro Section 100, PAROC Pro Section 140, PAROC Pro Combi 100 and PAROC Pro Bend 100 PAROC Hvac Section, PAROC Hvac Combi, PAROC Hvac Bend
Product description	<p>PAROC Pro Section 100: Stone wool pipe section with nominal density 100 - 154 kg/m³ depending on the dimensions.</p> <p>PAROC Pro Section 140: Stone wool pipe section with nominal density 140 kg/m³.</p> <p>PAROC Pro Combi 100: Stone wool pipe section with nominal density 100 - 154 kg/m³ and with corrugated inner surface.</p> <p>PAROC Pro Bend 100: Bended stone wool pipe section for pipe elbows with nominal density 100 - 154 kg/m³ depending on the dimensions.</p> <p>PAROC Hvac Section: Stone wool pipe section with nominal density 85 - 120 kg/m³ depending on the dimensions.</p> <p>PAROC Hvac Combi: Stone wool pipe section with nominal density 85 - 120 kg/m³ and with corrugated inner surface.</p> <p>PAROC Hvac Bend: Bended stone wool pipe section for pipe elbows with nominal density 85 - 120 kg/m³ depending on the dimensions.</p>
Approved application	Thermal and condensation insulation. Base product stone wool is non-combustible.
Technical document	<p>Product description, PAROC Pro Section 100, February 1, 2010.</p> <p>Product description, PAROC Pro Section 140, February 1, 2010.</p> <p>Product description, PAROC Pro Combi 100, March 26, 2010.</p> <p>Product description, PAROC Pro Bend 100, March 1, 2015.</p> <p>Product description, PAROC Hvac Section, December 28, 2010.</p> <p>Product description, PAROC Hvac Bend, May 12, 2015.</p>
Test reports	<p>Test Report VTT-S-893-15, March 19, 2015, VTT Expert Services Ltd, Finland.</p> <p>Test Report VTT-S-894-15, March 19, 2015, VTT Expert Services Ltd, Finland.</p> <p>Test Report VTT-S-1079-15, March 19, 2015, VTT Expert Services Ltd, Finland.</p>
Test methods and standards	IMO 2010 FTPC Annex 1 Part 1 (IMO Resolution MSC.307(88) Annex 1 Part 1) on non-combustibility.
Notes	This certificate replaces the previous EC Type-Examination Certificates (B-module) VTT-C-11534-15-16.

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the notified body named on this certificate.

Should the specified regulations or standards be amended during the period of validity of this certificate, the product is to be reapproved prior to it being placed on the market and on board vessels to which the amended regulations or standards apply.

The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E or F) of Annex B of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.

END OF CERTIFICATE

