

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB000005V
Revision No:
4

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the "A" Class divisions, fire integrity

with type designation(s)

Steel Bulkhead A60 with SeaRox FB 6040/SeaRox FB 6050 or SeaRox FB 6040/SeaRox FM 6040 ALU or SeaRox FB 6040/SeRox FM 6050 ALU

Issued to

Rockwool International A/S
Hedehusene, Denmark

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2019/1397,**

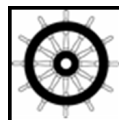
item No. MED/3.11a. SOLAS 74 as amended, Regulation II-2/3.2 & II-2/9, IMO 2010 FTP Code, IMO MSC/Circ.1120 and IMO MSC.1/Circ.1434, IMO MSC.1/Circ.1435.

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-07-27.**

Issued at **Høvik** on **2020-07-28**

DNV GL local station:
Denmark CMC



for **DNV GL AS**

Approval Engineer:
Marcin Tobiasz

Notified Body
No.: **0575**

.....
Roald Vårheim
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2019 dated February 22nd, 2019.

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-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Job Id: **344.1-004874-5**
Certificate No: **MEDB000005V**
Revision No: **4**

Product description

"Steel Bulkhead A60 with SeaRox FB 6040/SeaRox FB 6050 or SeaRox FB 6040/SeaRox FM 6040 ALU or SeaRox FB 6040/SeaRox FM 6050 ALU" composed of steel bulkhead to be insulated with one of the following variants:

1. SeaRox FB 6040 (density 60 kg/m³) between the stiffeners and SeaRox FB 6050 (density 70 kg/m³) around and upon the stiffeners OR:
2. SeaRox FB 6040 (density 60 kg/m³) between the stiffeners and SeaRox FM 6040 ALU (density 60 kg/m³) around and upon the stiffeners OR:
3. SeaRox FB 6040 (density 60kg/m³) between the stiffeners and SeaRox FM 6050 ALU (density 70kg/m³) around the stiffeners.

For variant 1:

Minimal thickness of the insulation on the bulkhead between the stiffeners is 70 mm. Minimal thickness of the insulation on the bulkhead around and upon the stiffeners is 30 mm. Insulation density range on the bulkhead between the stiffeners is 60-100 kg/m³ and on the stiffeners 70-100 kg/m³.

For variant 2:

Minimal thickness of the insulation on the bulkhead between the stiffeners is 70 mm. Minimal thickness of the insulation on the bulkhead around and upon the stiffeners is 35 mm. Insulation density range on the bulkhead between the stiffeners is 60-100 kg/m³ and on the stiffeners 60-100 kg/m³.

For variant 3:

Minimal thickness of the insulation on the bulkhead between the stiffeners is 70mm. Minimal thickness of the insulation around and upon the stiffeners is 30mm. Insulation density range on the bulkhead between the stiffeners is 60-100kg/m³ and on the stiffeners 70-100kg/m³.

For all variants:

- The insulation is fixed to the bulkhead by means of standard ø3 mm pins in combination with 30-38 mm diameter steel clips (spring washers).
- Distance between pins on the stiffeners is maximum 300 mm. Distance between pins on the bulkhead (between stiffeners) is maximum 300 mm.

For further details about pin-settings and design see drawings listed under Type Examination documentation below.

Application/Limitation

Approved for use as a vertical fire retarding division of class A-60.

The insulation materials and adhesives used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity. This requirement may also be applicable for surface materials used, if required by relevant rules and regulations.

Each product is to be supplied with its manual for installation, use and maintenance.

Type Examination documentation

Test Report No. PGA10661 dated 4 June 2015 from DBI, Hvidovre, Denmark.

Test Report No. PGA10770A dated 5 January 2016 from DBI, Hvidovre, Denmark.

Assessment Report Nos.:


PHA10631a dated 7 July 2015 (valid until 31 July 2020) from DBI, Hvidovre, Denmark.

PHA10631b dated 7 July 2015 (valid until 31 July 2020) from DBI, Hvidovre, Denmark.

PHA10631c dated 7 July 2015 (valid until 31 July 2020) from DBI, Hvidovre, Denmark.

PHA10631d dated 7 July 2015 (valid until 31 July 2020) from DBI, Hvidovre, Denmark.

PHA10631e dated 7 July 2015 (valid until 31 July 2020) from DBI, Hvidovre, Denmark.



Job Id: **344.1-004874-5**
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PHA10631f dated 26 June 2017 (valid until 30 June 2022) from DBI, Hvidovre, Denmark.

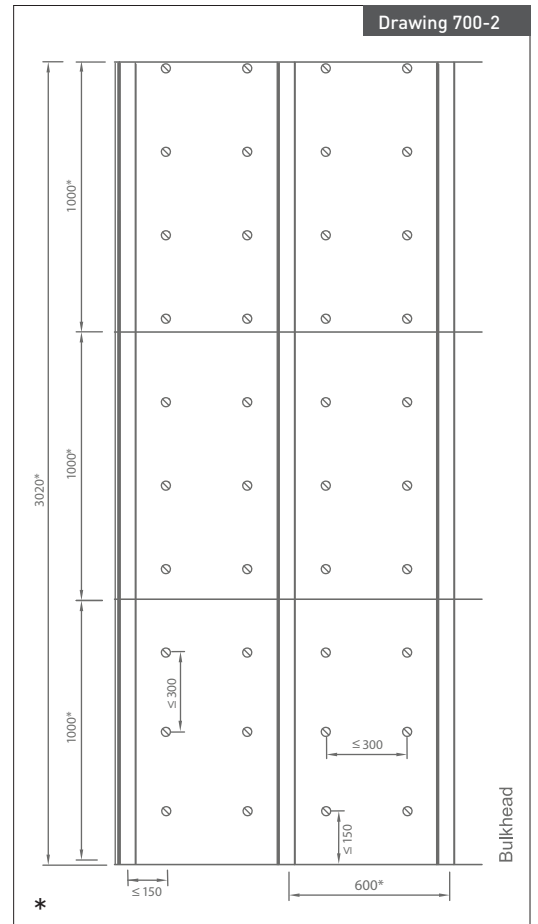
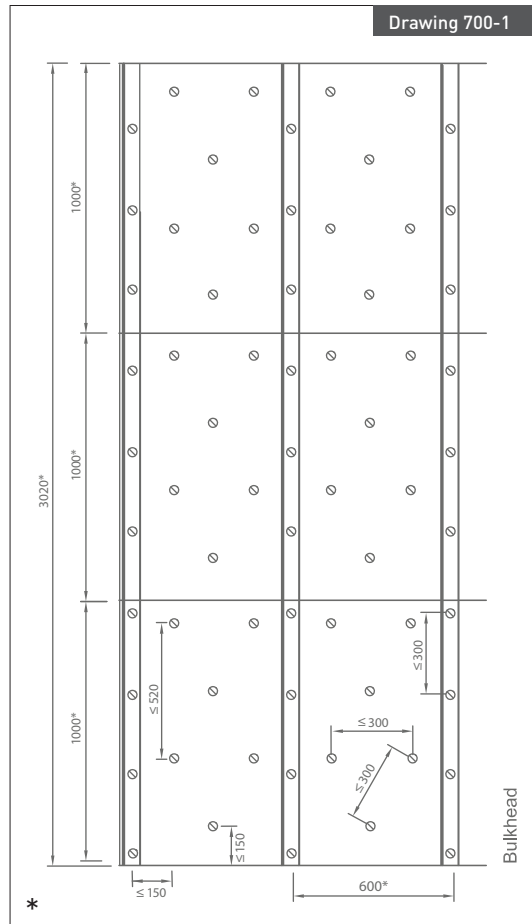
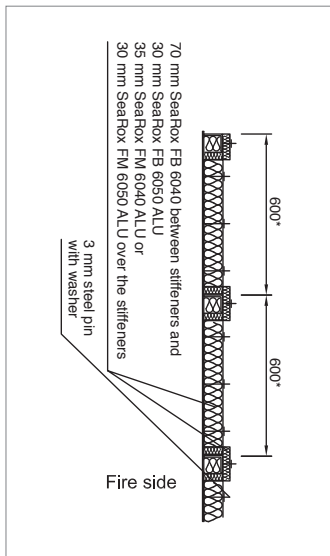
Drawing No. 100-1 dated 2 July 2015 from the manufacturer.
Drawing No. 100-2 dated 2 July 2015 from the manufacturer.
Drawing No. 100-3 dated 2 July 2015 from the manufacturer.
Drawing No. 100-4 dated 2 July 2015 from the manufacturer.
Drawing No. 100-5 dated 2 July 2015 from the manufacturer.
Drawing No. 400-1 dated 29 July 2015 from the manufacturer.
Drawing No. 400-2 dated 29 July 2015 from the manufacturer.
Drawing No. 400-3 dated 29 July 2015 from the manufacturer.
Drawing No. 400-4 dated 29 July 2015 from the manufacturer.
Drawing No. 700-1 dated 22 June 2017 from the manufacturer.
Drawing No. 700-2 dated 22 June 2017 from the manufacturer.
Drawing No. 700-3 dated 22 June 2017 from the manufacturer.
Drawing No. 700-4 dated 22 June 2017 from the manufacturer.

Tests carried out

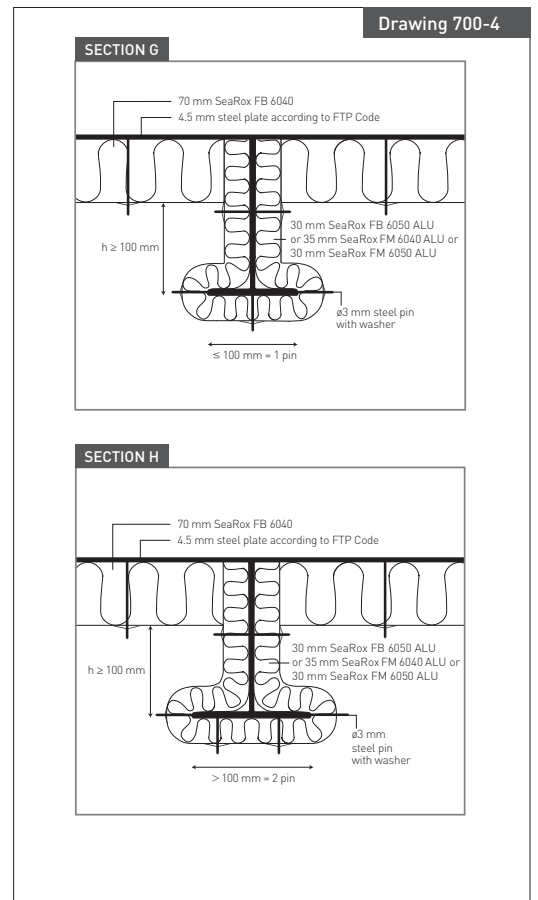
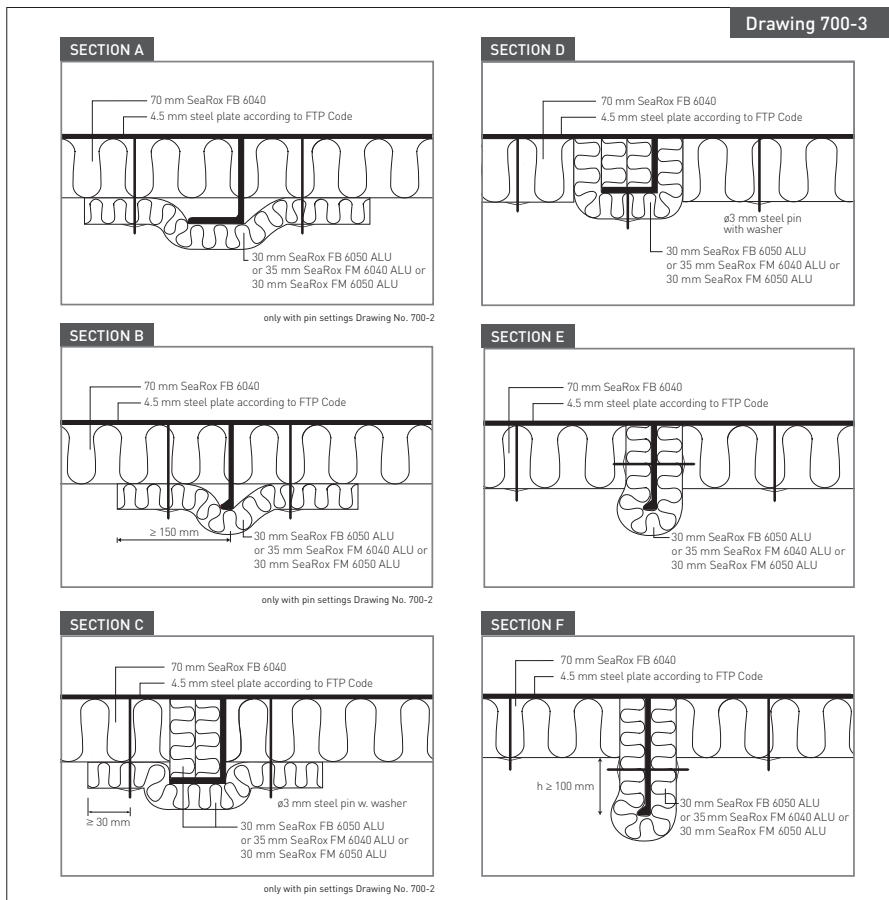
Tested according to IMO 2010 FTP Code Part 3.

Marking of product

The product is to be marked with name and address of manufacturer, type designation, fire technical rating, the MED Mark of Conformity and USCG Approval Number if applicable (see first page).



* Dimensions may vary depending on structural design and size of insulation slab.



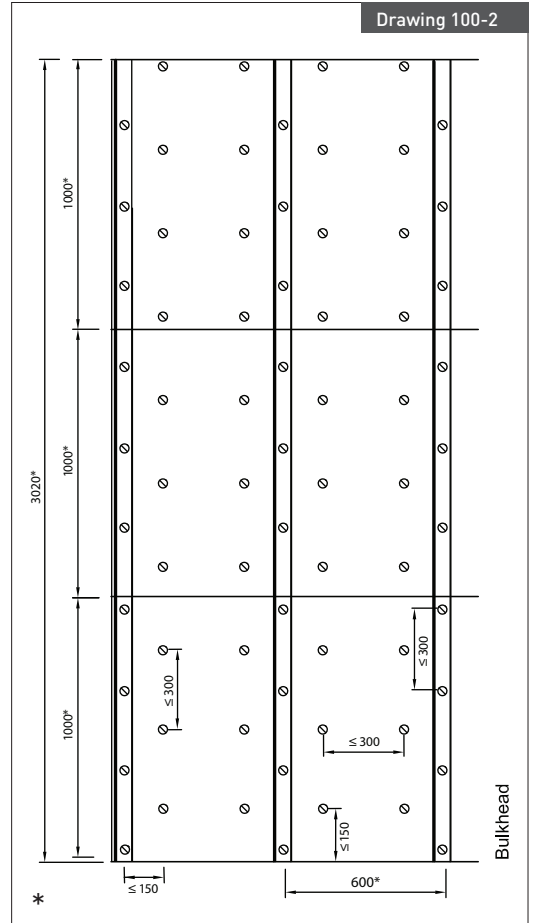
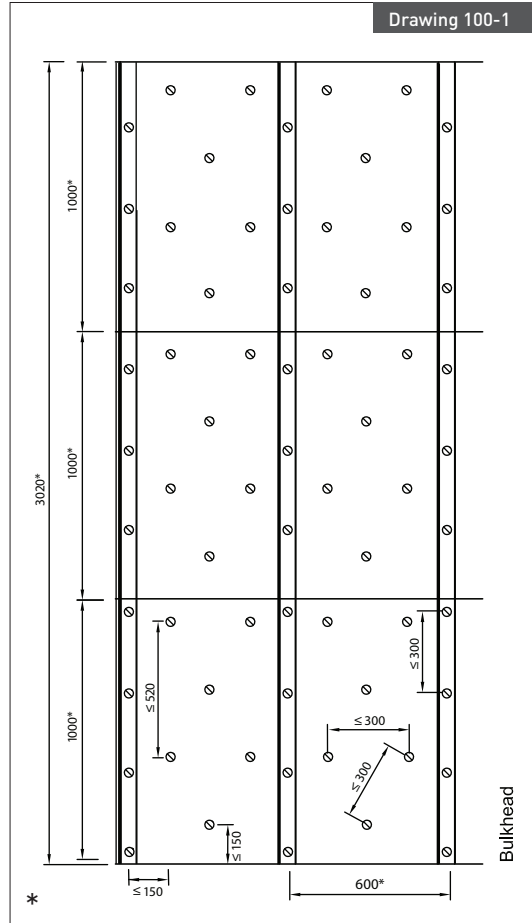
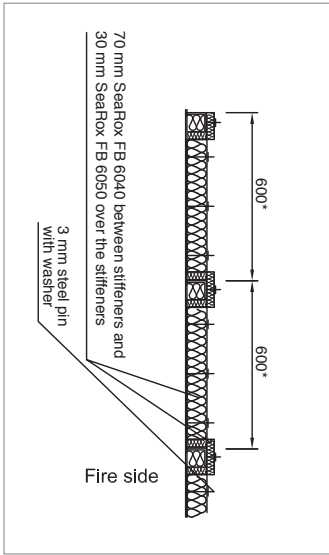
All measurements in mm

Date: 2017/09/26

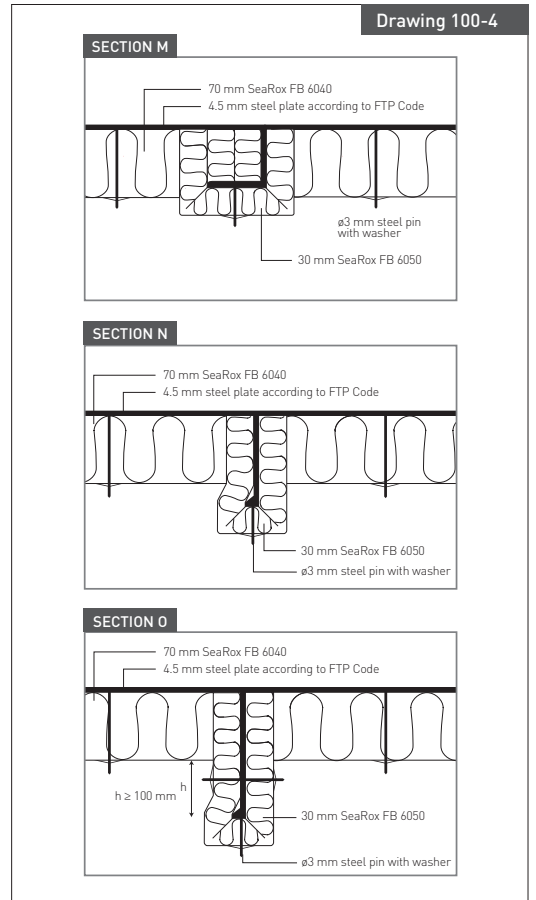
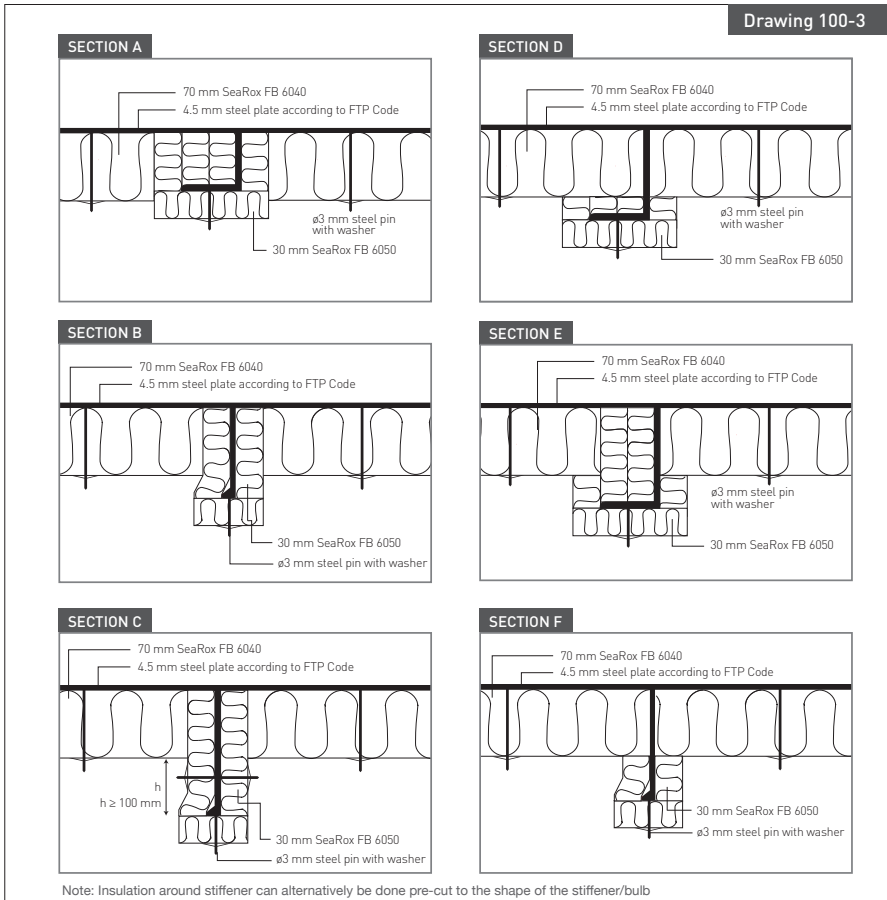
Subject: A-60 Bulkhead SeaRox FB 6040/ SeaRox FB 6050 ALU,
SeaRox FM 6040 ALU or SeaRox FM 6050 ALU

Assessment
Report Nos.: PHA10631f

ROCKWOOL®
TECHNICAL INSULATION



* Dimensions may vary depending on structural design and size of insulation slab.



All measurements in mm

Date: 2016/12/13

Subject: A-60 Bulkhead SeaRox FB 6040/ SeaRox FB 6050

Assessment Report Nos.: PHA10631a PHA10631b PHA10631c PHA10631d PHA10631e

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