EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00007CC

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 AS under the authority of the Government of Norway.

This is to certify:

That the Fire Doors

with type designation(s)
A60 class single door MV4360

Issued to
Momec AB
Bottnaryd, Jönköpings Län, Sweden

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2020/1170,**
item No. MED/3.16. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/Circ.1511, IMO MSC.1/Circ.1319

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

This Certificate is valid until **2026-03-25**.

Issued at **Høvik** on **2021-03-26**

DNV local station:
Sweden CMC

Approval Engineer:
Helge Bjørnarå

Notified Body
No.: **0575**

for **DNV AS**

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 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") 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.

Product description

"A60 class single door MV4360"
is a single leaf hinged door constructed of 1 mm thick steel sheets and with an insulating core of one layer of 60 mm thick Paroc Marine Slab (density 180 kg/m^3, produced by Paroc). The insulation is glued to the steel sheets with SikaForce adhesive (application 150 g/m^2, produced by Sika).

Total door leaf thickness: 62 mm.

The door leaf is fixed to the frame with 3 steel hinges. The three-sided frame is composed of 4.0 mm thick Z-shaped steel profile welded to a U-shaped steel profile (threshold) and the frame may either be welded or bolted (M8 x 20, c-c max. 250 mm) to the bulkhead.

The door may be fitted with:

- A window in the upper part of the door with dimensions 420 x 620 mm (W x H) and with thickness of 23 mm (type Pyrostop 60-101, produced by Pilkington). The window frame is made of 1.5mm thick steel sheets screwed (M4 x 14, c-c max. 150 mm) to the door leaf. A ceramic gasket (Insulfrax S Blanket, produced by Unifrax) is fitted between the glass pane and frame.
- A hose port of size 180 x 180 mm and fixed to the door leaf with one spring hinge.

For details, see drawings listed under Type Examination documentation below.

Application/Limitation

Approved for installation in steel bulkheads of class A-60. Installation of the door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Maximum door leaf size:	1178 x 2120 mm (W x H)
Maximum clear door opening:	1100 x 2100 mm (W x H)
Maximum clear opening window:	380 x 580 mm (W x H)

Doors shall be installed such that the gap under the door does not exceed 12 mm.

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

Type Examination documentation

Test report No. RS-21/B-035/E dated 11 February 2021 from CTO, Gdansk, Poland.

Dwg. No. 90046 dated 21 February 2010 from manufacturer.
Dwg. No. 90047 dated 21 February 2010 from manufacturer.
Dwg. No. 90048 dated 21 February 2010 from manufacturer.
Dwg. No. 90058 dated 21 February 2010 from 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).

USGC approval limitations

The approval is limited to fire doors without windows and doors with total window area of 645 cm2, or less, in each door leaf. For larger windows, USCG shall be contacted.