

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

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 Fire Doors

with type designation(s)
CMWS-A-0 Fire Door

Issued to

China Marine Windows Shipyard Co., Ltd.
Kaohsiung, Taiwan

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773**,
item No. MED/3.16. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/Circ.1511

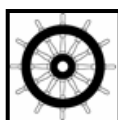
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2023-10-24**.

Issued at **Høvik** on **2018-10-25**

DNV GL local station:
Kaohsiung

Approval Engineer:
Thorvald Furuseth



Notified Body
No.: **0575**

for **DNV GL 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.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



Product description

"CMWS-A-0 Fire Door"

Single-leafed hinged door with door leaf constructed of 0.8 mm thick steel plate and with insulating core as follows: Calcium Silicate Board from Jia Dah Chemical industries Co. Ltd., and Ceramic fiber Blanket from Yen Hsin Technology Co, Ltd., (with density 128 kg/m³). The leaf has two stiffeners and reinforcement at top. Window at upper half of the door constructed of fire resistance glass (Vetrotech D-H-NT-60), frame (0.8 mm thick steel plate) and insulation/gasket (Ceramic fiber - ISOWOOL) bolted to the door leaf. Fire Control Hole (hose port) at lower corner fitted with 1 spring hinge.

Door leaf thickness is 35 mm.

The door leaf is fixed to the frame with three hinges. The door frame is constructed of 1.6 mm thick steel sheet.

The frame is insulated with Ceramic fiber Blanket from Yen Hsin Technology Co, Ltd., (with density 128 kg/m³).

The door frame is bolted with 3/16 UNC" bolt washer nuts to the bulkhead (max horizontal distance - 173 mm and max vertical distance - 204 mm) or welded.

For further details see drawings mentioned under Type Examination documentation.

Application/Limitation

Approved for use as an integrated part of fire retarding division of class A-0.

Clear opening Door leaf:	1017 mm x 2017 mm (w x h).
Max. size door leaf:	1051 mm x 2049 mm (w x h).
Maximum size of fire technical glazing unit:	480 mm x 580 mm (W x H).
Maximum clear light size:	420 mm x 520 mm (W x H).
Max. size hose port:	195 mm x 192 mm (W x H).

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 and use.

A fire door of marginally larger dimensions than a fire-tested fire door may be individually assessed and accepted by Flag Administration (or Recognized Organization acting on its behalf) for a specific project with the same classification, provided documented compliance with IMO MSC.1/Circ.1319.

Type Examination documentation

Test report No. FPSRC-D0584-IMO-F-05 dated 2018-06-22 from National Cheng Kung University Fire Protection and Safety Research Center, Tainan, Taiwan.

Drawing No. CMWS-2018-FD "CMWS-A0" from maker.
Drawing No. CMWS-2018-FD "Hinge" from maker.
Drawing No. CMWS-2018-FD "Installation" from maker.
Drawing No. CMWS-2018-FD "Fire Control Hole" from maker.
Drawing No. CMWS-2018-FD "A0 Door Windows" from maker.



Job Id: **344.1-006237-3**
Certificate No: **MEDB00004EB**

Tests carried out

Tested according to IMO 2010 FTP Code Part 3.

The door has been successfully tested for extended test period of 0 minutes insulation and 68 minutes integrity.

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).

USCG 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.