# TYPE EXAMINATION CERTIFICATE – EC MODULE B

Certificate no.:
**MEDB00008US**

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 dampers**

with type designation(s)
**SRFD and SCFD**

issued to
## Yantai Navigation Machinery Co. Ltd.
**Yantai**, **China**

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2024/1975,**

**item No. MED/3.22. SOLAS 74 as amended, Regulation II-2/9 and IMO 2010 FTP Code**

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

This Certificate is valid until **2030-08-19**.

Issued at **Høvik** on **2025-08-20**

DNV local unit:
**Dalian NB & CMC**

Approval Engineer:
**Izabela Misztal**

Notified Body
No.: **0575**

for **DNV AS**

**Mydlak-Röder, Christine**
**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 1/2023 dated August 21st, 2023.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 USD 300 000.

## Product description

"SRFD and SCFD"
are multi-bladed, rectangular and circular fire dampers with an electric and manual actuation, intended to use on bulkheads.

Blade construction:
SRFD-00, SRFD-E5-00, SRFD-E6-00: blades are constructed of 1.2 mm thick aluminium zinc plated steel sheet + 30 mm thick ceramic wool + 1.2 mm thick aluminium zinc plated stainless-steel sheet,

SRFD-E2-00: blades are constructed of 1.2 mm thick SUS304 stainless-steel sheet + 30 mm thick ceramic wool + 1.2 mm thick SUS304 stainless-steel sheet,

SCFD-E7-00: blades are constructed of 1.2 mm thick SUS316 stainless-steel sheet + 30 mm thick ceramic wool + 1.2 mm thick SUS316 stainless-steel sheet.

The fire damper casings are fixed to the coamings by means of:
- M5 x 8 steel bolts (SRFD-00),
- M10 x 40 steel bolts (SRFD-E2-00),
- M8 x 25 steel bolts (SCFD-E7-00),
- M10 x 25 steel bots (SRFD-E5-00, SRFD-E6-00).

Casing and coaming insulation:
two layers of 20 mm thick TG-2 type ceramic wool of nominal density 170 kg/m$^3$, manufactured by Changzhou Thermal Insulation Material Factory Co., Ltd. The insulation material is applied on the outer surface of the coaming/spigot and is applied to a distance of 100 mm from the end of the unexposed surface of the coaming/spigot.

Blade insulation:
30 mm thick TG-2 type ceramic wool of nominal density 170 kg/m$^3$, manufactured by Changzhou Thermal Insulation Material Factory Co., Ltd.

For further details please see Type Examination documentation below.

## Application/Limitation

The fire damper is approved for installation in steel bulkheads. Other applications are subject to case-by-case approval.

| Fire damper type | Max. size of damper [mm] | Coaming thickness [mm] | Damper body wall thickness [mm] | Damper body length [mm] | Coaming length on unexposed side [mm] | Application |
|---|---|---|---|---|---|---|
| SRFD-00 | 800 x 500 | 5 | 5 | 250 | 550 | A-0 |
| SRFD-E2-00 | Ø1200 | 10 | 10 | 550 | 550 | A-0 |
| SRFD-E5-00 | 800 x 500 | 5 | 5 | 250 | 550 | A-60 |
| SRFD-E6-00 | 1400 x 600 | 5 | 5 | 350 | 550 | A-60 |
| SCFD-E7-00 | Ø350 | 5 | 5 | 400 | 550 | A-0 |

| Fire damper type | Material | Max. number of blades | Max. size of blade [mm] | Actuators to be used (*) |
|---|---|---|---|---|
| SRFD-00 | Q235-B | 3 | 796 x 221 x 30 (W x H x T) | manual: type DL-CI-4 |
| SRFD-E2-00 | SUS304 | 6 | 1194 x 255 x 30 (W x H x T) | electric: type BF230 |
| SRFD-E5-00 | Q235-B | 3 | 796 x 221 x 30 (W x H x T) | electric: type BFN230 |
| SRFD-E6-00 | Q235-B | 2 x 3 | 656 x 255 x 30 (W x H x T) | electric: type BFN230 |

| | | | | |
|---|---|---|---|---|
| SCFD-E7-00 | SUS316 | 1 | Ø345 x 30 | electric: type BFL230 |

(*) Actuators of same make but with different size as mentioned above may also be used, provided that they have sufficient torque, similar installation arrangement and equivalent fire technical and functional properties.

The damper shall be capable of being closed from both sides of the deck.

The insulation used during testing is to be regarded as minimum insulation for all fire ratings and is not to be removed if the fire damper is to be used in divisions with lower fire ratings.

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

## Type Examination documentation

Test report no. AJFS2411013431FR-01 dated 24 January 2025 from SGS-CSTC, Anji, China.
Test report no. AJFS2410011946FR-02 dated 24 January 2025 from SGS-CSTC, Anji, China.
Test report no. AJFS2409010645FR-02 dated 24 January 2025 from SGS-CSTC, Anji, China.

Drawing no. SRFD-00 dated 18 December 2023 from the manufacturer.
Drawing no. SRFD-E2-00 dated18 December 2023 from the manufacturer.
Drawing no. SRFD-E5-00 dated 18 December 2023 from the manufacturer.
Drawing no. SRFD-E6-00 dated 18 December 2023 from the manufacturer.
Drawing no. SCFD-E7-00 dated 18 December 2023 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).