DNV·GL

Certificate No:
TAF00001E4

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Fire Damper

with type designation(s)
MFDA

Issued to
FläktGroup Finland Oy
Turku, Finland

is found to comply with
DNV GL rules for classification – Ships
DNV GL offshore standards
DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

The fire damper are approved for installation in steel bulkheads and deck.

Application/Limitations see overleaf.

This certificate is recognized by Transport Canada.

Issued at **Høvik** on **2020-11-04**
This Certificate is valid until **2025-11-03**.
DNV GL local station: **Finland NB**

Approval Engineer: **Thorvald Furuseth**

for **DNV GL**

Mårten Schei-Nilsson
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Product description

"MFDA" fire damper
Automatic actuator operated rectangular fire damper. The blades are made of either galvanized or stainless steel EN 1.4404 with insulation of type Paroc Marine Slab 40 (manufactured by Paroc, density 40 kg/m^3). Maximum height of blades is 200 mm and thickness 29.5 mm. Bladecover gasket Promaseal PLSK 10 mm x 2.5 mm.

The fire damper frame is made of 4-5 mm hot dipped galvanized steel or stainless steel EN 1.4404 with optional gasket between mounting flanges (Finlon CaO 3 mm x 30 mm).

The damper is fitted with electric actuator from Belimo and fusible link Belimo BAT thermoelectric sensor.

Damper is fixed to the coaming with M10x25 mm bolts and nuts, c.c. 150 mm or fully welded.

The coaming is made of 4-5 mm structural steel with following lengths:
- Bulkhead unexposed side – 980 mm.
- Deck unexposed side – 880 mm.
- Bulkhead and deck exposed side – 115 mm.

For bulkhead:
On unexposed side the coaming is insulated 930 mm with 70 mm thick Paroc Marine Navis Slab 60 (manufactured by Paroc with density 60 kg/m^3).

For deck:
On unexposed side the coaming is insulated 830 mm with 70 mm thick Paroc Marine Navis Slab 60 (manufactured by Paroc with density 60 kg/m^3).

For bulkhead and deck:
Additional insulation layer at the roots of the coamings which reach 290 mm away from the coaming on top of the bulkhead insulation surface. On the exposed side, the 115 mm long coaming part as well as the fire damper frames are insulated with 70 mm thick Paroc Marine Navis Slab 60 (manufactured by Paroc with density 60 kg/m^3).

For further details, see approved drawings listed under Type Approval documentation below.

Application/Limitation

The fire damper is approved for installation in A60-class steel bulkheads and decks. Other applications are subject to case-by-case approval.

Fire Dampers for A-60 bulkhead and deck				
Fire Damper Dimensions [mm]	No. of blades	Thickness frame and coaming [mm]	Thickness damper blades [mm]	Max. Height damper blades [mm]
1300 x 1200	6	5	29.5	200
600 x 600	3	4	29.5	200

Max. size of fire damper: 1300 mm x 1200 mm
Max. number of blades: 6

Electric actuators that may be used (*):
- Belimo BF230-TN
- Belimo BF24-TN
- Belimo BFN230-T
- Belimo BFN24-T

(*) Actuators of same brand 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 insulation used is to be regarded as minimum insulations for all fire ratings and is not to be removed if the fire damper is to be used in division with fire rating lower than A-60.

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

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

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, September 2018.

Test report Nos.:
- EUFI29-19002361-T1, dated 2020-02-14 from Eurofins Expert Services Oy, Espoo, Finland
- EUFI29-19002361-T2, dated 2020-02-14 from Eurofins Expert Services Oy, Espoo, Finland
- EUFI29-19002361-T3, dated 2020-02-14 from Eurofins Expert Services Oy, Espoo, Finland
- EUFI29-19002361-T4, dated 2020-02-14 from Eurofins Expert Services Oy, Espoo, Finland
- EUFI29-19006184-T1, dated 2020-03-04 from Eurofins Expert Services Oy, Espoo, Finland

Tests carried out

Tested according to IMO 2010 FTP Code Part 3.

Marking of product

The product is to be marked with name of manufacturer, type designation and fire technical rating.

Transport Canada approval

Based on the procedures laid down in the Transport Canada Publication entitled "Approval Procedures for, Life Saving Equipment and Structural Fire Protection Products (TP 14612)", DNV GL confirms that the product/s listed in this certificate is/are in accordance with Transport Canada's requirements.

Periodical assessment

DNV GL’s surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNVGL-CP-0338, Section 4.