



Marine &amp; Offshore

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composed of 7 sections  
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Notified Body 2690 - MARINE EQUIPMENT DIRECTIVE 2014/90/EU

## EC TYPE EXAMINATION CERTIFICATE

as per Module B of Directive 2014/90/EU of the European Parliament and of the Council of 23 July 2014 as transposed in the French Regulations and Commission Implementing Regulation (EU) 2022/1157 of 4 July 2022

This certificate is issued to:

**Halton Marine Oy**

Lahti - FINLAND

for the type of product

**FIRE DAMPERS**

A-60 Class Fire Dampers, Type "FDK"

### Requirements:

SOLAS 74 convention as amended, Regulations II-2/9  
IMO Res. MSC.307(88) (2010 FTP Code)

This certificate is issued on behalf of the French Maritime Authorities to attest that Bureau Veritas Marine & Offshore did undertake the relevant type-examination procedures for the product identified above which was found to comply with the relevant requirements of the Directive 2014/90/EU of the European Parliament and of the Council of 23 July 2014 as transposed in the French Regulations.

**This certificate will expire on: 06 Oct 2028**


**For Bureau Veritas Marine & Offshore Notified Body 2690,**

At BV TURKU (ABO), on 06 Oct 2023,

Miika KOKKO

**This certificate was created electronically and is valid without signature**



**This certificate does not allow to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark ) to the products corresponding to this type. To this end, the production-control phase module (D, E or F) of Annex II of the Directive is to be complied with and controlled by a written inspection agreement with a notified body.**

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. Bureau Veritas Marine & Offshore is designated by the French Maritime Authority as a "notified body" under the terms of the French Regulations Division 140 Chapter 140-2. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

## **THE SCHEDULE OF APPROVAL**

### **1. PRODUCT DESCRIPTION :**

#### **A-60 Class Fire Dampers, Type "FDK"**

Rectangular steel fire dampers with sizes from 150x150 mm up to 800x800 mm and composed of 1 mm thick steel or stainless steel frame (depth 210 mm) and one to four blades (total thickness 25 mm).

Fire Damper Dimensions (width x height)	150x150 mm	800x800 mm
Fire Damper Type	single blade	multi-blade (4 blades)
Maximum height of one blade (mm)	150	200
Gasket between blades (sealing material)	OT Kumi Silicon N:O 113 (EPDM) + Tenmat FF102	

The fire dampers are mounted to the coaming by a flange joint with bolts and nuts.

Coaming length: 1350 mm minimum including the damper

Coaming thickness: 3 mm

The frame of the fire damper is mounted at a minimum distance of 450 mm from the structural core (the distance between the fire damper blades and the structural core is min. 555 mm).

Coaming and fire damper casing are fully insulated on the side exposed to fire (only actuators need not to be insulated) and insulated on a length of 450 mm on the side unexposed to fire, with a 38 mm thick layer of non-combustible material "FyreWrap LT" (nominal density 128 kg/m<sup>3</sup>; manufactured by UnifraxLimited).

The operative control of the damper is:

- electrical (with fusible link): electric actuator Schischek InMax-15-SF, Halton (Belimo) BFN230 HL, Halton (Belimo) BF230-2 HL or Belimo SF230A-S2-C7, or
- pneumatic (with fusible link): pneumatic actuator AirTorque AT101U S12 B, or
- automatic (with fusible link): stainless steel spring.

Note: The construction of the fire damper itself is the same in these dampers, only the operation is different.

### **2. DOCUMENTS AND DRAWINGS:**

2.1 - As per the Manufacturer's documentation "FDK - Fire Damper - Installation, operation and maintenance instructions" Version: 02 dated 18/12/2018.

2.2 - As per the Manufacturer's drawings:

- N° SaL230036 Rev.1 dated 02/06/2023 (mounting in A-60 class deck)
- N° SaL230027 Rev.1 dated 02/06/2023 (mounting in A-60 class bulkhead)
- N° LH-4313, "FDK\_EL 800x800 InMax", dated 11/07/2023
- N° LH-4314, "FDK\_PN 800x800 PN", dated 11/07/2023
- N° LH-4315, "FDK\_EL 150x150 Belimo BF", dated 15/08/2023
- N° LH-4316, "FDK\_EL 150x150 Belimo SF230", dated 12/07/2023

### **3. TEST REPORTS:**

3.1 - Test report N° EUFI29-23001079-T1 dated 04/09/2023 (test date: 11/08/2023), as per IMO 2010 FTP Code Annex 1 Part 3, from Eurofins Expert Services Oy, Finland (mounting in A-60 class deck).

3.2 - Test report N° EUFI29-23001078-T1 dated 04/09/2023 (test date: 02/06/2023), as per IMO 2010 FTP Code Annex 1 Part 3, from Eurofins Expert Services Oy, Finland (mounting in A-60 class bulkhead).

### **4. APPLICATION / LIMITATION:**

4.1 - Approved for use:

- in A-15, A-30, A-60 class steel divisions, with fire insulation as described in §1.
- in A-0 class steel divisions, with local fire insulation arrangement (on the coaming itself as described in §1 and 200 mm around).

4.2 - Any other arrangement of fire damper (coaming / fire insulation) is subject to a case-by-case approval.

4.3 - The damper is to be:

- provided with an indicator which shows whether the damper is open or closed. This indicator is to be fitted on the damper out of the insulation coating, if any.
- capable of being closed manually from both sides of the division.

4.4 - The tests have been carried out with fire insulating material "FyreWrap LT" (nominal density 128 kg/m<sup>3</sup>; manufactured by UnifraxLimited); any alternative A-class insulation material, previously proven and approved, giving at least an equivalent insulation performance, can be used.

4.5 - Actuators of same mode (pneumatic, manual or electric) and manufacturer as tested ones but with different size may also be used, provided that they have sufficient torque, a similar installation arrangement and equivalent fire technical and functional properties.

#### **5. PRODUCTION SURVEY REQUIREMENTS:**

5.1 - This certificate alone does not allow the applicant to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark) to the products corresponding to this type. To this end, the production-control phase module D Production Quality Assurance or module E Product Quality Assurance or module F Product Verification of Annex II of the Directive is to be complied with and controlled by a written inspection agreement with a Notified Body.

5.2 - For information concerning the production phase modules, **Halton Marine Oy** has declared the following manufacturing sites:

**Halton Marine Oy**  
**Pulttikatu 2**  
**15700 Lahti**  
**FINLAND**

**Halton Ventilation (Shanghai) Co., Ltd.**  
**Block 7, No. 55 Feidu Road,**  
**Lingang New City, Pudong New District**  
**201306 Shanghai**  
**People's Republic of China**

#### **6. MARKING OF PRODUCT:**

6.1 - Reference is made to MED 2014/90/EU chapter 2.

In particular Article 10.3 specifies that the wheelmark shall be followed by the identification number of the Notified Body involved in the production control phase (module D, E or F) and by the year in which the mark is affixed (4 digits or last 2 digits).

6.2 - In pursuance of the EU/US MRA+, and in accordance with the Council Decision 2004/425/EC of 21 April 2004 amended by Decision 1/2018 of 18 February 2019, the product(s) marked as per MED 2014/90/EU may be marked with the USCG conformity marking as authorized by the Notified Body undertaking surveillance module.

#### **7. OTHERS:**

7.1 - It is **Halton Marine Oy**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This Certificate supersedes EC Type Examination Certificate N° 20680/C0 MED issued on 23/09/2018 by the Society.

\*\*\* END OF CERTIFICATE \*\*\*