

1. **TYPE EXAMINATION CERTIFICATE**

2. **Equipment or Protective System Intended for use in Potentially explosive atmospheres
Directive 2014/34/EU**

3. Type Examination Certificate Number: **EESF 19 ATEX 021**

4. Product: **Fire Dampers**
 Certified types: **FDB2, FEX, FDL, FDO and FDA**

5. Manufacturer: **Halton Marine Oy and Halton Ventilation (Shanghai) Co. Ltd.**

6. Address: **Pulttikatu 2, 15700 Lahti, FINLAND**
**No. 10 Block, No. 600 South Xinyuan Road Lingang New City, Pudong New District,
201306 Shanghai, CHINA**

7. This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8. Eurofins Expert Services Oy, Certification Body No. S017 accredited by the Finnish Accreditation Service (FINAS), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive 2014/34/EU of February 2014.

The examination and test results are recorded in confidential reports No. VTT-S-02216-16, VTT-S-03400-16 and VTT-S-04784-16.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 80079-36 (2016) EN 80079-37 (2016)

10. If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11. This Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12. The marking of the product shall include the following:



II 2 G Ex h IIA, IIB, IIC T1...T6 Gb

Espoo, 24.1.2020
Eurofins Expert Services Oy

Kari Koskela
 Expert

Riku Vuorinen
 Business Development Manager

This document is digitally signed.



13. **Schedule**

14. **Type Examination Certificate EESF 19 ATEX 021**

15. **Description of Product**

Halton fire dampers are type-approved class A0 (A60) or H0 (H120) fire and gas dampers for use in offshore, nuclear, navy and marine ventilation systems (depends the damper model). The dampers can be installed in rectangular or circular ducts. All fire dampers have equipped with or without a fusible link and they prevent the spread of fire and gases within the ventilation ductwork. When the blades are in the open position, the device does not cause significant pressure loss, noise or flow disturbance. FEX, FDO, FDL, FDB2 and FDA dampers are set from outside and can be installed in any position. An open-closed label is visible on the outside of the dampers. The fire dampers are constituted of iron frame and blades moved by electrical, pneumatic or spring actuators of a certified category II 2 G type.

This document certifies that the fire dampers can't produce an ignition source which can ignite an explosive atmosphere.

The refractory is not covered.

The equipment is not designed to stop an explosion.

Possible equipment categories: II 2/3 G or II 2/- G.

16. **Report Number**

VTT-S-02216-16, VTT-S-03400-16 and VTT-S-04784-16

17. **Specific Conditions of Use**

Damper open/close maximum speed: One meter per second.

Limitation of surface areas of gasket: 80 cm² for IIC group and 400 cm² for IIA and IIB groups.

18. **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed at item 9.

19. **Thermal ignition assessment and tests**

Temperature class T1 to T6, conditional upon temperature class of assembled certified equipment and air flow temperature. T6 without assembled certified equipment and air flow temperature below 80 °C.

20. **Drawings and Documents**

Drawings and documents are listed in the confidential report.

21. Certificate History

Issue	Date	Report No.	Change
VTT 16 ATEX 019	5.7.2016		Prime certificate
VTT 16 ATEX 019 Issue 1	23.8.2016		Editorial change
VTT 16 ATEX 019 Issue 2	8.11.2016		FDA added to the Certificate
EESF 20 ATEX 021	22.1.2020		Manufacturing place Kausala removed and Shanghai added to the certificate