

CERTIFICATE OF FIRE APPROVAL

This is to certify that

The product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations and with the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

Manufacturer	Halton Oy
Address	Pulttikatu 2 15700 Lahti Finland
Type	FIRE DAMPER (HYDROCARBON FIRE TEST)
Description	Single/Multi Blade Fire Damper - Type: "FEX"
Specified Standard	IMO Fire Test Procedures Code, Annex 1, Part 3

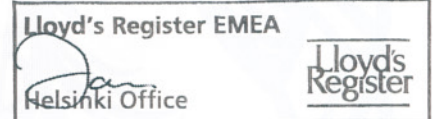
The attached Design Appraisal Document forms part of this certificate.

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached Design Appraisal Document are complied with and the equipment remains satisfactory in service.

Date of issue	3 December 2007	Expiry date	2 December 2012
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Certificate No.	SAS F070357
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Signed	
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Sheet No	1 of 3
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Name	M. Farrier Surveyor to Lloyd's Register EMEA A Member of the Lloyd's Register Group
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Note:

This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Lloyd's Register of any modification or changes to the equipment in order to obtain a valid Certificate.

"Lloyd's Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register Group'. The Lloyd's Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract."

DESIGN APPRAISAL DOCUMENT

Date 3 December 2007	Quote this reference on all future communications LDSS/PAS/FITA/PG/MF
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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F070357

This Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Technical Research Centre of Finland (VTT) Espoo, Finland, Test Report No. RTE3411/03, dated 28 November 2003 and Test Report No. VTT-S 4280-07, dated 21 May 2007.

CONDITIONS OF CERTIFICATION

1. May be used in H-0 divisions with insulation fitted to fire damper and in H-15, H-30 or H-60 divisions with fire damper and ducting insulated with an approved insulation system suitable for the rating of the division. The total length of insulated fire damper and the ducting shall be as indicated on the table below and intermediate sizes of ducts may be interpolated based on the cross-section area.

Bulkhead or Deck Insulated Length of ducting (including fire damper)

Damper Size	
100mm x 100mm	1200mm x 1200mm
1200mm	3600mm

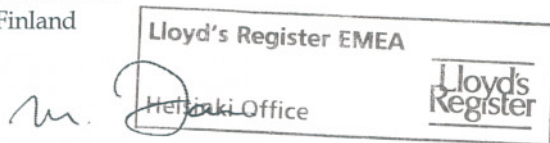
2. Minimum and maximum size of damper: 100mm x 100mm up to 1200mm x 1200mm
3. 100mm x 100mm fire damper consists of 20mm single steel blade, 1200mm x 1200mm fire damper consists of six 20mm steel blades. All fire damper bodies manufactured in 3mm thick stainless steel and blade fabricated in stainless steel with "Intumex" seals.
4. Damper to be used with the following actuators:
 - a) Schischek EST-1524-F1, ExMAX-5.10-F, InMAX-5.10-F
 - b) Belimo BF 230-2-HL, B24-2HL
 - c) Siemens GCA 321.1 E
 - d) Air Torque AT100 S10 B
 - e) Roder 245N
 - f) Festo DRE-4-F05
 - g) Spring-Terasjousi Oy
 - h) Prisma PO5S
 - i) Air Torque AT210 S10 B designed to operate at 65°C
5. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure that items are of the same standard as the approved prototype.

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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F070357**PLACE OF PRODUCTION**

Halton Oy
Pulttikatu 2
15700 Lahti
Finland



Martin Farrier
Lead Specialist
Product Approval Services
London Design Support Services
Lloyd's Register EMEA

Supplementary Type Approval Terms and Conditions

This certificate and Design Appraisal Document relates to type approval, it certifies that the prototype(s) of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein, it does not mean or imply approval for any other use, nor approval of any products designed or manufactured otherwise than in strict conformity with the said prototype(s).