



Translated from Finnish

## MINISTRY OF THE ENVIRONMENT DECISION ON TYPE APPROVAL

Ref. no.: YM61/6221/2008 1 (2)  
Date of Issue: 25 August 2008  
Valid until: 31 March 2011

Pursuant to section 148 of the Land Use and Building Act (231/2003) and subject to the provisions of section 4 of the Act on the Approval of Building Products (230/2003), the Finnish Ministry of the Environment has granted the following type approval.

### PRODUCT

**Self-closing fire damper FDI for round air ducts.** Manufactured in accordance with Annex 1 (2 page), Annex 2 (1 page) and Annex 3 (10 pages) to VTT's statement VTT-S-5611-08 (16 June 2008).

### APPLICANT

Halton Oy, Iitti, Finland

### SCOPE OF THE APPROVAL

This approval confirms that the product complies with the requirements set forth in parts E1, E7 and D2 of the National Building Code of Finland as follows:

- **Class EI 60 in a fire-separating gypsum board or concrete or masonry wall with a minimum thickness of 92 mm.**
- **Class EI 60 in a fire-separating concrete slab with a minimum thickness of 110 mm.**
- **Class E 90 in a fire-separating concrete slab with a minimum thickness of 110 mm. The fire damper is to be installed in a fire-insulated section of an air duct.**
- **Air tightness class C.**

### CONDITIONS OF APPROVAL

To be installed in fire-separating concrete or masonry or board wall (minimum thickness 92 mm) or a concrete and masonry slab (minimum thickness 110 mm).

The diameter of the FDI fire damper is 100 mm to 630 mm.

The closing temperature of the fire damper is normally 70°C ±5°C. In special cases, a lower or higher closing temperature may be selected in accordance with section 4.2 of part E7 of the National Building Code of Finland.

The fire dampers are to be fire-insulated to Class E 60 and E 90 requirements as provided in Table 1 in section 4.2 of part E7.

The fire damper shall be installed in accordance with the installation instructions prepared by the applicant. The installation certificate supplied with the installation instructions shall be included in the inspection documents of the building site. The GPG or CP 637 compound or Firebreak Compound is to be used for providing a fire break.

MINISTRY OF THE ENVIRONMENT  
HOUSING AND BUILDING DEPARTMENT

Mailing address: P.O. Box 35  
FIN-00023 GOVERNMENT, Finland  
Phone: +358 20 490 100  
Fax: +358 9 160 39320  
www.ymparisto.fi

**QUALITY CONTROL**

Quality control shall be carried out in accordance with the Quality Control Agreement 2070/21/03/RTE signed between the applicant and Technical Research Centre of Finland VTT, Espoo, on 1 December 2003.

**MARKINGS**

The fixed type-approval plate shall contain the following data:

- Manufacturer's name and domicile
- YM61/2008
- Product name and size
- Fire class EI60 or E 90 in fire-insulated air ducts
- Manufacturing date or number
- Air tightness class C
- Type approval sign as indicated in the appendix to this Approval.

**COMMENTS**

Installation instructions shall be provided with the products delivered to the site and submitted to the designer and regulatory authority upon request.

The fire damper has been tested to EN-1366-2 requirements. According to the tests carried out in accordance with the standard, the fire damper also conforms to class S 60 and S 90 requirements with regard to smoke leak. The said S class is not included in the National Building Code of Finland.

The tightness of the casing has been tested according to the EN 1751:1998 standard. The air tightness class C has been determined in accordance with the Circular 3319/533/89 of the Ministry of the Environment "Instructions for the Type-Approval and Testing of Air Ducts" dated 31 May 1989.

**VALIDITY**

This decision shall become effective on 25 August 2008 and will remain in force indefinitely but not beyond 31 March 2011.

**GROUND FOR APPROVAL**

Test Report VTT-S-4022-08 (16 May 2008)  
Test Report VTT-S-4023-08 (19 May 2007)  
Test Report VTT-S-4040-08 (16 May 2008)  
Test Report VTT-S-4058-08 (16 May 2008)  
Test Report VTT-S-06338-08 (28 July 2008)  
Statement VTT-S-06337-08 (28 July 2008)  
Statement VTT-S-5611-08 (16 June 2008)

Head of Section

Helena Säteri (signed)

Senior Technical Adviser

Olavi Lilja (signed)  
tel. +358 400 143 944  
fax +358 9 1603 9356  
olavi.lilja@ymparisto.fi

**APPENDICES:**

Type approval sign  
Instructions for submission of request for review  
Instructions for appeal

**C.C.:**

- VTT Certification and Product Approval, Lina Markelin-Rantala  
P.O Box 1000, FI-02044 VTT  
- VTT Fire Testing, Jussi Rautiainen  
P.O Box 1000, FI-02044 VTT

oli.epy.ym61-2008doc

I hereby certify that this is a true translation of the Finnish document shown to me.

  
Vesa Vahvanen  
Certified translator



Helsinki, 25 September July 2008