



# DOCUMENTATION

## SPFR 030-0277

With reference to the national code of building regulations of 27 June 2008 with the Norwegian building regulations of 1 July 2010 and belonging guidance, we document, on the basis of test certificates, evaluations and installation instructions, that this product meets the requirements of the Norwegian authorities as to the fire related qualities.

**Building material:** FB Air Transfer Grille

**Product responsible:** Securo AS, Neptunveien 6, 7652 Verdal, Norway

The documentation is conditional that the product is in accordance with the specifications given in the appendix and that the product is applied and used in accordance with regulations and all important details in this process follow precisely what is described in an installation manual, which is checked by SP Fire Research AS. Both the installation manual and the SP Fire Research AS Documentation shall follow the product or be available for the purchaser, user, inspector and the local authority.

The product shall be labeled with **SPFR 030-0277**, trade name, product responsible and/or manufacturer together with a reference to the production for traceability. The labelling shall have good visibility.

Detailed product design and principle design of installation details are described in "Standard construction details for FB Air Transfer Grille sealant belonging to Documentation **SPFR 030-0277**". The version of the construction details filed at SP Fire Research AS at any time is a formal part of the approval.

The product must have at least one annual, external inspection related to the internal system for control of quality. The inspection is adjusted to the type of product and other existing inspection arrangements. Details specified in a written agreement with NBL.

First issued: **2011-11-22**. A renewal may be issued based on a written application. Termination by the applicant shall be asked for in writing and with 6 months notice. SP Fire Research AS may withdraw this documentation when irregularities or misuse happens and written instructions are not respected.

**Issued: 2016-11-21**  
**Valid until: 2023-01-01**

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Asbjørn Østnor  
Discipline Manager Documentation

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Per Arne Hansen  
Project Manager Documentation

**This document is an English version of the Norwegian documentation SPFR 030-0277 dated 2016-11-21.**

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## Appendix 1 to Documentation SPFR 030-0277 of 2016-11-21

### 1. Owner of the Documentation

Securo AS  
Neptunveien 6  
7652 Verdal  
Norway  
www.securo.no

### 2. Manufacturer

Securo AS, Verdal, Norway.

### 3. Product Description

The FB Air Transfer Grille (FB Grille) is a passive vent designed for use in fire resistance rated partition walls. The vent does not contain any moving parts, detector activating system or cabling. The vent prevents fire spread by combining a steel grille blocking flames during the first minutes, and an intumescent material that swells and blocks the opening when the vent is exposed to flames or hot smoke gases. It can be made in sizes up to 600 x 600 mm.

Detailed product design and principle design of installation details are described in "Standard Construction Details for FB Grille belonging to SP Fire Research AS documentation no. SPFR 030-0277". The version of the construction details filed at SINTEF at any time is a formal part of the approval.

### 4. Fields of Application

The FB Grille can be used in walls with gypsum boards or in concrete walls in rooms for ventilation through internal or external fire resistance rated partitions. See cl. 5 for more details.

### 5. Properties

#### Fire Resistance

The FB Grille has achieved a fire resistance in walls with gypsum boards and in concrete walls with thickness  $\geq 100$  mm as shown in Table 1, verified by type tests as specified in cl. 7.

The FB Grille installed in min. 100 mm thick walls with gypsum boards or in concrete walls, with louvre combinations A, C, D, E and G as shown in Table 1, has 60 minutes fire resistance. These combinations can be used in walls where fire resistance EI 30 or EI 60 is required in the building regulations (TEK).



Fig. 1  
FB Grille (picture from www.securo.no).

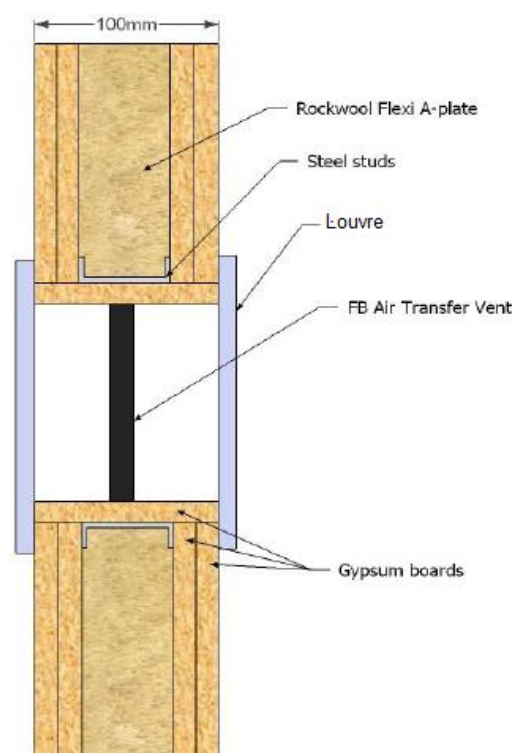


Fig. 2  
Installation principle for the FB Grille in walls with gypsum boards (cf. specimen A - G in Table 1) used in the test at SINTEF NBL as.

Correspondingly the FB Grille installed with louvre combinations B and F in Table 1 has a 90 minutes fire resistance, and these combinations can be used in walls where fire resistance EI 30, EI 60 or EI 90 is required in the building regulations (TEK).

In all cases the FB Grille shall be installed in accordance with the "Standard Construction Details for FB Grille belonging to SP Fire Research AS documentation no. SPFR 030-0277".

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Table 1

Fire resistance of the FB Grille depending on the vent dimensions and type of louvre on the exposed and/or the unexposed side of a wall with gypsum boards or concrete wall with thickness  $\geq 100$  mm.

Test specimen. Type of louvre (see Table 2)	Dimensions of FB Vent (H x W) (mm)	Fire Resistance (minutes)
A: Trox Auranor OVA louvre on the unexposed and the exposed side	590 x 590	60
B: Trox Auranor LOF-S louvre on the unexposed and the exposed side.	80 x 790	90
C: Flexit steel louvre on the unexposed and the exposed side	215 x 215	60
D: Flexit flap-valve, plastic, on the exposed side, Flexit steel louvre on the unexposed side.	136 x 136	60
E: Trox Auranor OVA Louvre on the unexposed and the exposed side.	190 x 590	60
F: Flexit flap-valve, plastic, on the unexposed side, Flexit steel louvre on the exposed side.	136 x 136	90
G: Flexit steel louvre on the unexposed and the exposed side	136 x 136	60

#### Direct Flame Impingement

The FB Grille resists immediate exposure by flames, and may prevent fire spread in the open state prior to the intumescent material has swelled out and blocked the vent completely.

### 6. Special Conditions for Use and Installation





#### Installation

The FB Grille shall be installed in the middle of a wall aperture of a wall with gypsum boards, see Fig. 2. FB Grille shall be fixed to the wall with screws and a fire resistance rated sealant. Louvres has to be installed on both sides of the wall opening.

Otherwise the FB Grille shall be installed according to installation details shown in "Standard Construction Details for FB Grille belonging to SP Fire Research AS documentation no. SP Fire Research AS 030-0277".

Table 2

Type of louvres that can be used in combination with the FB Grille.

Louvre no.	Type of louvre	Location	
I	Flexit, steel louvre	exterior	
II	Flexit flap-valve, plastic	interior	
III	Trox Auranor OVA louvre	interior	
IV	Trox Auranor LOF-S louvre	interior	

#### Maintenance

The FB Grille does not contain any moving parts, and does not need special maintenance in order to function in case of fire. To ensure air passage a visual inspection of the vents should be performed regularly in order to prevent that the perforated steel plates are not blocked with dust, insects etc. Hence, it is recommended to carry out inspection and necessary cleaning each fifth year. The louvres are then dismantled, and if necessary the FB Grille is cleaned by a vacuum-cleaner or by blowing.

### 7. Basis for the Documentation

- SINTEF NBL as. Test report 103011.24, dated 2010-05-27, according to NS-EN 1366-3:2009.
- SINTEF NBL as. Test report NBL A10109, dated 2010-10-21.
- Securo AS. Drawing no.:  
 Securo FB wall vent 590 x 590.  
 Main assy vent 590 x 590.  
 Vent assembly 590 x 590, sheet 1 and 2.  
 Main assy vent 80 x 790.  
 Vent assembly 80 x 790, sheet 1 and 2.  
 Main assy vent 215 x 215.  
 Vent assembly 215 x 215, sheet 1 and 2.  
 Main assy vent 136 x 136.  
 Vent assembly 136 x 136, sheet 1 and 2.  
 Main assy vent 190 x 590.  
 Vent assembly 190 x 590, sheet 1 and 2.  
 All drawings are dated 2011-03-10.

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## 8. Validity

The validity of the appendix is uniquely linked to the first page of the document with the requirements, conditions and time stamps that are presented there.

## 9. Technical Management

Project manager for this approval is Jan P. Stensaas, SP Fire Research AS, Trondheim.

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