

# FBLS

## INTUMESCENT Fire Block Louvre System

### ZERO *plus*

#### Suitable for Steel Fire Doors

The FBLS system has been assessed by Warrington Fire Research Centre for four hours integrity in accordance with BS 476: Part 22: 1987 up to maximum cut-out size of 457 x 1524mm (width x height), on previously tested steel doorsets. Copy of Warrington Fire Research Centre Report C129754 available on request. In the event of fire the intumescent expands 80 times its own volume to fill the door void.

#### Suitable for Timber Fire Doors

The FBLS system has also been assessed by Warrington Fire Research Centre for use on previously tested timber based fire resisting doorsets, to provide a period of fire resistance of up to 30 or 60 minutes in accordance with BS 476: Part 22: 1987. Copy of Report No. WF 146937 available on request. The louvres must be installed so that they are less than 1000mm above the doorset threshold (i.e. within the negative pressure area), and the aperture should be lined with Zero FS4004 1.6mm thick intumescent aperture liner (44mm wide on FD30 doorsets and 54mm wide on FD60 doorsets), which should be ordered separately. No hardwood lipping is required.

#### Intumescent aperture liners

FS4004 #40621750PSA 1.6mm thick x 44mm wide x 2438mm long intumescent  
FS4004 #40622125PSA 1.6mm thick x 54mm wide x 2438mm long intumescent

FS 4004 aperture liners are supplied with PSA pressure sensitive tape to one side, and should be fitted to all four sides of the aperture.

If FBLS is being used on steel fire rated doors, an intumescent aperture liner is not required.



**intumesce** (in't(y)öö-mēs)

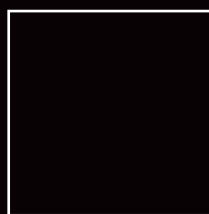
*intr.v.* in-tu-mesced, in-tu-mescing, in-tu-mesces

1. To swell or expand; enlarge.
2. To bubble up, especially from the effect of heating.

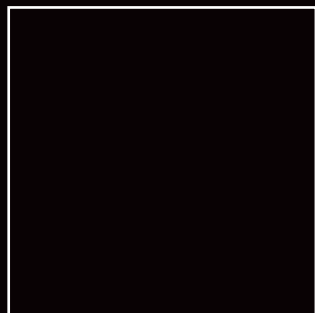
**HISTORY** C18: from Latin *intumescere*, from *tumescere* to begin to swell

**intu<sup>m</sup>mescent** ADJECTIVE

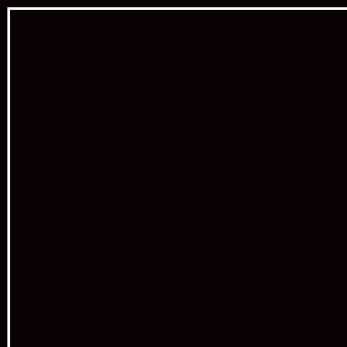
CI/SIB  
(76.7) X



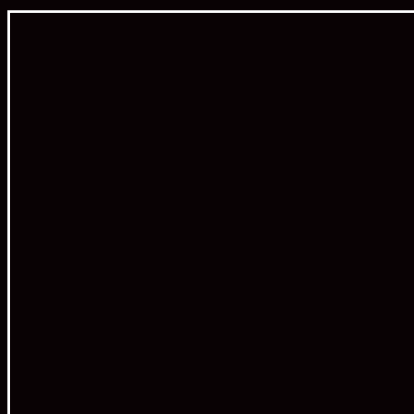
Ref **FBLS1212**  
C/s 305x305mm  
I/b 301x301x14mm



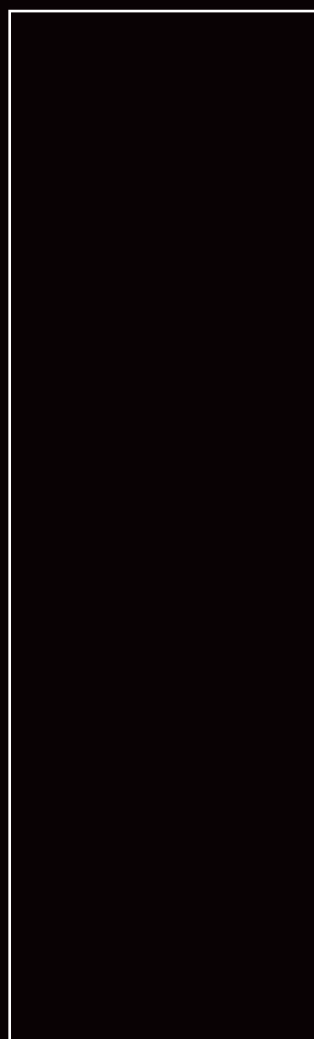
Ref **FBLS1818**  
C/s 457x457mm  
I/b 453x453x14mm



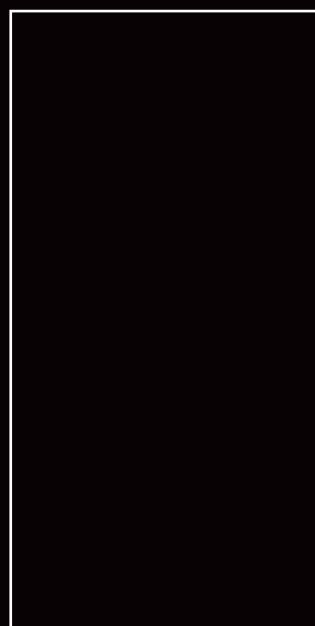
Ref **FBLS2020**  
C/s 508x508mm  
I/b 504x504x14mm



Ref **FBLS2424**  
C/s 610x610mm  
I/b 606x606x14mm



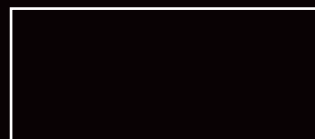
Ref **FBLS1860**  
C/s 457x1524mm  
I/b 453x1520x14mm



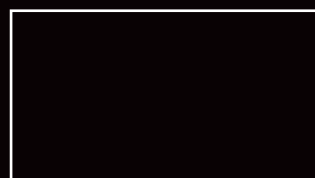
Ref **FBLS1836**  
C/s 457x914mm  
I/b 453x910x14mm



Ref **FBLS1610**  
C/s 406x254mm  
I/b 402x250x14mm



Ref **FBLS1808**  
C/s 457x203mm  
I/b 453x199x14mm



Ref **FBLS1810**  
C/s 457x254mm  
I/b 453x250x14mm

C/s = Complete System  
Door Cut Out Size  
I/b = Intumescent Block  
Actual Size

### ZERO *plus*

Specialist hardware suppliers to the door openings industry

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Email: sales@zeroplus.co.uk Website: www.zeroplus.co.uk

In the interests of continuous product improvement we reserve the right to alter the specification and detail of items shown in this brochure without notice.  
CD2776

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# FBLS

## INTUMESCENT

### Fire Block Louvre System

The FBLS Fire Block Louvre System (complete set) consists of an FB intumescent block grille only 14mm thick which fits within the door leaf in the door aperture, and an FDLS two-part steel louvre set which fixes to both sides of the door and sandwiches the FB intumescent block. In the event of fire the intumescent expands 80 times its own volume to fill the door void preventing the spread of flames.

The FBLS Fire Block Louvre System is suitable for timber fire doors up to 60 minutes and steel fire doors up to 240 minutes integrity. Nine standard sizes are available from stock including 610x610mm and 457x1524mm (width x height). Any size is available to order from 152x152mm minimum cut out. Louvre frames are supplied as standard in galvanised mild steel, already grey primed ready for powder coating. Powder coated finishes and stainless steel frames are available to special order. FBLS suits doors of 44mm minimum thickness; there is no maximum door thickness. Fire rated fusible link louvres and standard non-fire rated louvres are also available from stock.

#### Applications

Fire Block Louvre System is designed to be used on fire rated doors to rooms that require ventilation. A standard louvre will allow ventilation but will also allow the passage of flames and smoke, but FBLS will maintain the integrity of fire doors and prevent the spread of flames. Examples of applications are doors to plant rooms, stores, computer rooms, changing facilities and manufacturing areas. In fact, any area that requires ventilation but is protected by a fire rated door.



Please contact us if you require details on our full range of other louvre products

fire rated louvres | inverted Y louvres | fusible link louvres | adjustable louvres | non-vision louvres  
self-attaching louvres | operable louvres | transom louvres | security grille louvres | darkroom louvres  
storm proof louvres | louvre cores | bird mesh | insect mesh | security fasteners | mild steel louvres  
aluminium louvres | Grade 304 & 316 stainless louvres

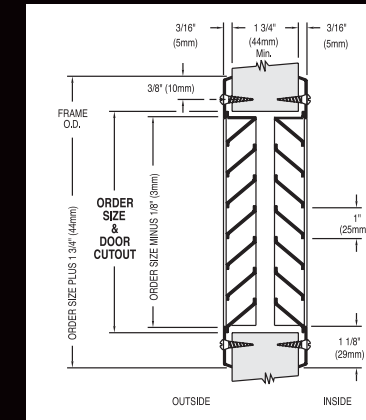
#### Installation

It is designed for doors of 44mm minimum thickness, and on steel doors it will be necessary to fit a reinforcing inverted channel at the bottom of the cut-out to support the FB intumescent block. There is no maximum door thickness, although it will be necessary to provide some lateral support for the 14mm thick FB intumescent block on doors thicker than 44mm.

#### Louvres

The FDLS is an inverted split Y non-vision louvre, manufactured from 18 GA cold rolled steel, galvanised and grey primed. It fastens to both sides of the door and sandwiches the intumescent block within the thickness of the door.

The louvre is also available in Grades 304 and 316 to special order.



#### Fasteners

The louvre frames fasten to both sides of the door using standard No.8 x 19mm sheet metal or wood screws through countersunk mounting holes. These are supplied with the louvres. Optional Snake eye or Torx screws are available for applications where security is required on the external face (at extra cost).



#### Product Specification

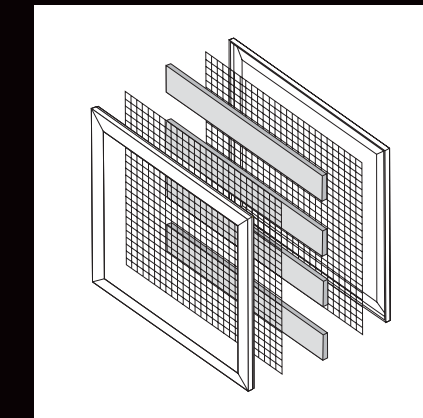
**Material:** 18GA. Galvanised steel frame louvre blades

**Door Thickness:** To suit minimum 44mm thick doors. No maximum door thickness.

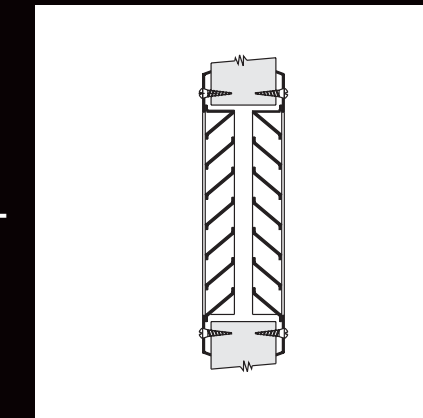
**Fire Rating:** Four hours on steel doors, maximum aperture size 457 x 1524mm (W x H).  
One hour on timber doors, maximum aperture size 457 x 914mm (W x H).

**Free Air Flow:** 40 % free area.

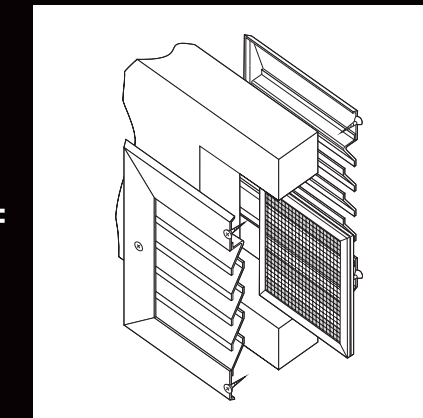
**Finishes:** The standard finish is galvanised steel grey primed: available powder coated to RAL references to order. Other finishes including stainless steel Grade 304 and Grade 316 available to order.



FB Intumescent Block



FDLS Louvre



FBLS System

FBLS System - Order and door cut-out sizes for complete System (width x height)

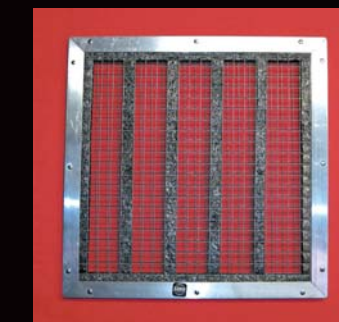
Ref	Cut-out Size WxH	Outside Louvre Frame Dimension WxH
FBLS1212	305 mm x 305 mm	349 mm x 349 mm
FBLS1610	406 mm x 254 mm	450 mm x 298 mm
FBLS1808	457 mm x 203 mm	501 mm x 247 mm
FBLS1810	457 mm x 254 mm	501 mm x 298 mm
FBLS1818	457 mm x 457 mm	501 mm x 501 mm
FBLS1836	457 mm x 914 mm	501 mm x 958 mm
FBLS1860	457 mm x 1524 mm	501 mm x 1568 mm
FBLS2020	508 mm x 508 mm	552 mm x 552 mm
FBLS2424	610 mm x 610 mm	654 mm x 654 mm



FBLS System

FB Intumescent Block only (width x height x thickness) - actual size

Ref	Width	Height	Thickness
FB1212	301 mm	301 mm	14 mm
FB1610	402 mm	250 mm	14 mm
FB1808	453 mm	199 mm	14 mm
FB1810	453 mm	250 mm	14 mm
FB1818	453 mm	453 mm	14 mm
FB1836	453 mm	910 mm	14 mm
FB1860	453 mm	1520 mm	14 mm
FB2020	504 mm	504 mm	14 mm
FB2424	606 mm	606 mm	14 mm



FB Intumescent Block

Other sizes available to special order, 2-3 weeks delivery. For fractional inch cut-out sizes the overall louvre frame size is increased to accommodate the odd size.