

High Wycombe Office: Chiltern House, Stocking Lane, High Wycombe, HP14 4ND, United Kingdom T: +44 (0)1494 569750 W: www.warringtonfire.com

Title:

Field of Application for:

Falcon Stredor® 54 Doorsets

For 30 & 60 Fire Minutes Resistance

Report No:

WF377027 Revision A

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428330

Prepared for:

Falcon Panel Products Ltd. Clock House, Station Approach, Shepperton, Middlesex, **TW17 8AN**

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The version/revision stated on the front of this Field of Application supersedes all previous versions/revisions and must be used to manufacture doorsets from the stated validity date on this front cover. Previous revisions of the Field of Application cannot be used once an updated Field of Application has been issued under a new revision.

Registered Office: Warringtonfire Testing and Certification Limited, 10 Lower Grosvenor Place, London, United Kingdom, SW1W 0EN. Reg No. 11371436

12 Installation

12.1 General

This section consider the installation of direct types of frames and doorset. This section considers:

- the door frame and architrave installation position relative to the wall
- the fire stopping between the frame and the wall
- the fixing requirement including packers
- the requirements for door edge gaps
- the trimming of door edges

12.2 Door Frame Installation: Frame 1

The following diagrams indicate acceptable door frame/wall installation arrangements and are used with leaf 1 and 2:

The drawings below show the relationship of frame to wall and location of firestopping between wall and frame.

See section 12.5 for preparation requirement for the aperture.

The frame is required to finish flush with the face of the wall, architraves are optional except where gaps are in excess of 20mm (see section 12.3 below).

12.2.1 Timber Stud Supporting Construction: Installation Detail







B): with frame extension

12.2.2 Blockwork Supporting Construction: Installation Detail



(A): without frame extension





(B): with frame extension

12.3 Firestopping

The firestopping requirements between back of frame and wall are dependent on the gap size.

Gaps (mm) Requirement

0-5 this should not occur as it is practically not possible to apply a firestopping material into a gap of this size.

If unavoidable the following must be applied:

A 30x2mm strip of graphite fixed to back of the frame located central to the frame rebate and capped with intumescent mastic.

- 5 10 must be sealed on both sides with a 10mm depth of acrylic intumescent mastic, fire tested for this application to BS 476: Part 22: 1987 or BS EN 1634-1. Based on the test evidence the use of architraves is optional.
- 10 20 must be tightly packed with mineral fibre capped on both sides with a 10mm depth of acrylic intumescent mastic, fire tested for this application to BS 476: Part 22: 1987 or BS EN 1634-1 or full depth expanding PU foam, fire tested for this application to BS 476: Part 22: 1987 or BS EN 1634-1. Architraves are optional.
- Over 20 this would be considered a poor preparation of the structural opening. A timber based or non-combustible subframe up to 50mm thick can be inserted and fixed to the wall and the gap between subframe and wall filled as follows:
 - Gaps 5 to 10mm filled on both sides with 10mm depth of acrylic intumescent mastic or full depth expanding PU foam, fire tested for this application to BS 476: Part 22: 1987 or BS EN 1634-1. Joint must be fitted with 15mm thick architraves overlapping at least 15mm each side.
 - The subframe to door frame gap filled as above.



12.4 Packers

Packers can be timber of equal density to the frame or plywood or plastic packers if fire tested for this application to BS 476: Part 22: 1987 or BS EN 1634-1.

12.5 Wall Types

The frame needs to be fixed back to a supporting construction which will remain in place for the duration of the fire resistance period. The following aspect of the different supporting constructions need to be considered.

12.5.1 Masonry, Concrete & Solid Blockwork

These are considered as rigid constructions and are solid throughout the depth of the wall and have inherent fire resistance. These walls are denoted as rigid constructions in BSEN 1364 Part 1 as they deflect very little during a fire test. Due to the solid nature of the wall firestoppinig as detailed above will be adequate. Highly perforated blockwork is not covered by this category and specific test evidence must be referenced to ensure adequate support during the fire exposure period.

12.5.2 Steel Stud Partitions

These are considered as flexible constructions and incorporate large voids in their construction. These walls deflect during a fire test. Specific evidence is require to ensure the stud supporting the door frame is stabilised to reduce deflection during the fire test and the aperture is adequately lined to prevent gases getting into the void.

12.5.3 Timber Stud Partitions

These are not catagorised but tend not to distort significantly during a fire test. A timber stud does not need to be stabilised during the fire test.

12.5.4 Bespoke Walls & Partitions

These will require specific test evidence.

12.6 Onsite Leaf Size Adjustment

Leaf Size Adjustment Specification		
Element	Reduction	
Lipping	The dimensions stated in section 5.3 may be reduced by 1mm for fitting purposes but cannot go below the minimum.	

The door leaves should not be modified on site so only limited actions can be taken, see table below.

12.7 Door Gaps

For fire resistance performance, door edge gaps and alignment tolerances must fall within the range shown in the following table.

Door Edge Gaps & Alignment Tolerance Specification	
Location	Dimensions
Door edge gaps	A minimum of 2mm and a maximum of 4mm



Alignment tolerances	Leaves must not be proud of each other or from the door frame by more than 1mm
Threshold	10mm between bottom of leaf and top of floor covering. (See section 14 for gap details with reference to smoke control)

12.8 Fixings

The frame jambs are to be fixed to the supporting construction using steel fixings at 600mm maximum centres. The fixings must be of the appropriate type for the supporting construction and must penetrate to a minimum depth of 40mm. It is not necessary to fix the frame head, although packers must be inserted.

