## THIS DOCUMENT IS PROVIDED FOR INFORMATION RELATING TO FIRECORE TESTED FIRE-RESISTANT DOOR SYSTEMS UTILIZING TVC30 AND TVC40 DOOR CORE

Firecore TVC30 and TVC40 core is a vermiculite-based core containing no asbestos, noncombustible insulation materials. TVC Core is backed by a substantial database of established fire tests (full-scale and pilot-scale), formal assessments and opinions ranging from FRL of -/60/30 (1 Hour) to -/240/30 (4 Hour) covering a substantial array of door configurations and sizes to suit most applications.

Maximum available door size up to 3500mm in height x up to 1500mm in width in both single leaf and double leaf configurations. Maximum sizes and FRL's are subject to the conditions outlined in this document.

The information in this manual assumes that subsequent to the purchase of the components that they will be installed in accordance with the established tested prototypes and that they will be assessed, tagged and certified as required under the relevant provisions of AS1905.1.

For all documentation requirements for a completed installation refer to AS1905.1.

Firecore Pty Ltd reserves the right to change, amend, modify and/or retract this document without notice. Whilst all care has been taken in the preparation of this manual Firecore Pty Ltd accepts no liability for errors or omissions and the user is to verify the appropriateness of these products for their specific application.

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## **FIRECORE Fire Door Manual**

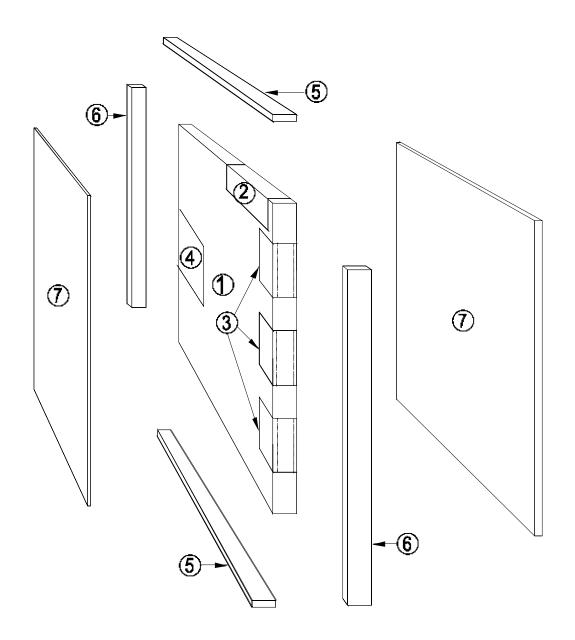
#### **Contents**

1.	Firecore TVC-Core Fire door Construction View	3
2.	Firecore TVC30 Mini Fire Doorset.	4
3.	Firecore TVC40 Maxi Fire Doorset	6
4.	Firecore Fire Doorset Incorporating Various Wall System	26
5.	Other Applications for Firecore Fire Doorset	
6.	Firecore Acoustic Door Systems	
7.	Firecore Sliding Fire Door	
8.	Firecore Approved Hardware List	

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### **FIRECORE TVC-Core Fire door Construction View**



- 1. Firecore TVC30 Mini Core & TVC40 Maxi Core
- 2. Perforated Steel Channel Closer Plate
- 3. Perforated Steel Channel Hinge Plate & Hinge Backing Plate
- 4. Perforated Steel / Aluminum Channel Lock Plate
- 5. Top & Bottom Timber Edge Strips (finished nominally 10mm thick)
- 6. Side Stiles Timber Edge Strips (finished nominally 10mm thick)
- 7. Plywood, MDF & Masonite Dura-cote HDF Door Facing





#### General introduction to Firecore TVC30 Mini Fire Doors

The following section details the available options for Firecore TVC30 Mini Fire Resistant Doorsets (Firecore TVC30 Mini Fire Door).

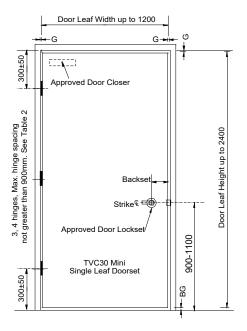
Firecore TVC30 Mini Fire Doors have a nominal door thickness of 37mm dependent on selected door facing and have a range of approved options (hardware and facings) up to a maximum FRL of  $-\frac{120}{30}$  and sizes up to 2400mm x 1200mm in a hinged single leaf doorset configuration.

For door options that exceed the limits of Firecore TVC30 Mini Fire Doors refer to Firecore TVC40 Maxi Fire Doors which include options for up to a maximum FRL of -/240/30 and sizes up to 3500mm x 1500mm single leaf doorset and 3500mm x 3000mm double leaf doorset (2 equal leaves @ 1500mm each).

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#### • TVC30 Mini Single-leaf Fire Door Up to 2400mmx1200mm in Metal Frames



#### • NOTE

- 1. Nominal door thickness of 37mm
- 2. Metal frame thickness: 1.1mm +/- 15% and rebate size: 41mm x 25mm
- 3. Approved for use in the following wall systems
  - a. Masonry
  - b. Plasterboard partition
  - c. AAC Panel
- 4. Approved for surface routing to a depth of 1.2mm and either square or V shape 5mm wide groove in both Dura-cote and MDF door facings
- 5. Approved for FRL up to -/120/30 with a maximum clearance of 20mm between the bottom of the door leaf and the top of the non-combustible sill (FCO-2942, tested to AS1530.4-2005)
- 6. Refer to Table 2 for hinge requirements
- 7. Refer to the approved hardware list for Firecore TVC30 Mini fire door
- 8. Metal frame backfill options
  - a. Cement grout/Mortar
  - b. 13mm or 16mm fire grade plasterboard
  - c. LAF Vermitex TH

#### AVAILABLE

Maximum Door Leaf Size (H x W) (mm)	Door Facing	Maximum FRL	Reference
2400 x 1200	MDF	Up to -/90/30	FCO-2872 Rev-L
2400 x 1200	Untreated or FR Treated Plywood or Masonite Dura-cote	Up to -/120/30	FCO-2872 Rev-L
2400 x 1200	FR Treated Plywood + Up to 1.5mm thick Metal sheet facing without Metal channel capping	Up to -/120/30	FCO-2872 Rev-L
2400 x 1200	Plywood + Up to 1.5mm thick Acrovyn facing	Up to -/60/30	FCO-2872 Rev-L

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#### General introduction to Firecore TVC40 Maxi Fire Doors

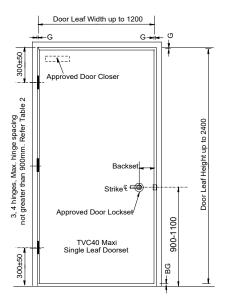
The following section details the available options for Firecore TVC40 Maxi Fire Resistant Doorsets (Firecore TVC40 Maxi Fire Door).

Firecore TVC40 Maxi Fire Doors have a nominal door thickness of 47mm dependent on selected door facing and have a range of approved options (hardware and facings) up to a maximum FRL of -/240/30 and sizes up to 3500mm x 1500mm in a hinged single leaf doorset configuration and sizes up to 3500mm x 3000mm double leaf doorset configuration (2 equal leaves @ 1500mm each).

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#### TVC40 Maxi Single-leaf Fire Door Up to 2400mmx1200mm in Metal Frames



#### **NOTE**

- Nominal door thickness of 47mm
- Metal frame thickness: 1.1mm +/- 15% and rebate size: 51mm x 25mm
- Approved for use in the following wall systems
  - a. Masonry
  - b. Plasterboard partition
  - c. AAC Panel
- 4. Approved for surface routing to a depth of 1.2mm and either square or V shape 5mm wide groove in both Dura-cote and MDF door facings
- Approved for FRL up to -/120/30 with a maximum clearance of 20mm between the bottom of the door leaf and the top of the non-combustible sill (FCO-2942, tested to AS1530.4-2005)
- Refer to Table 2 for hinge requirements
- Refer to the approved hardware list for Firecore TVC40 Maxi fire door
- Metal frame backfill options
  - a. Cement grout/Mortar
  - b. 13mm or 16mm fire grade plasterboard
  - c. LAF Vermitex TH

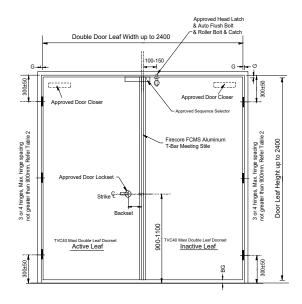
#### **AVAILABLE**

Maximum Door Leaf Size (H x W) (mm)	Door Facing	Maximum FRL	Reference
2400 x 1200	MDF	Up to -/90/30	FCO-2872 Rev-L
2400 x 1200	Untreated Plywood	Up to -/120/30	FCO-2872 Rev-L
2400 x 1200	Masonite Dura-cote & FR Treated Plywood	Up to -/240/30	FCO-2872 Rev-L
2400 x 1200	FR Treated Plywood + Up to 1.5mm thick Metal sheet facing without Metal channel capping	Up to -/240/30	FCO-2872 Rev-L
2400 x 1200 Plywood + Up to 1.5mm thick Metal sheet facing with Metal channel capping		Up to -/120/30	FCO-2872 Rev-L
2400 x 1200	Plywood + Up to 1.5mm thick Acrovyn facing	Up to -/60/30	FCO-2872 Rev-L

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#### TVC40 Maxi Double-leaf Fire Door Up to 2400mmx2400mm in Metal Frames



#### **NOTE**

- Nominal door thickness of 47mm
- Metal frame thickness:1.1mm +/- 15% and rebate size: 51mm x 25mm
- Approved for use in the following wall systems
  - a. Masonry
  - b. Plasterboard partition
  - c. AAC Panel
- 4. Approved for surface routing to a depth of 1.2mm and either square or V shape 5mm wide groove in both Dura-cote and MDF door facings
- Approved for FRL up to -/120/30 with a maximum clearance of 20mm between the bottom of the door leaf and the top of the non-combustible sill (FCO-2942, tested to AS1530.4-2005)
- Refer to Table 2 for hinge requirements
- Refer to the approved hardware list for Firecore TVC40 Maxi fire door
- Metal frame backfill options
  - a. Cement grout/Mortar
  - b. 13mm or 16mm fire grade plasterboard
  - c. LAF Vermitex TH

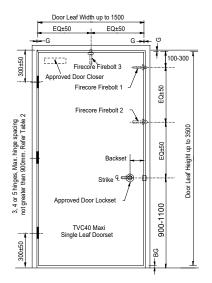
#### **AVAILABLE**

Maximum Door Leaf Size (H x W) (mm)	Door Facing	Maximum FRL	Reference
2400 x 2400	MDF	Up to -/90/30	FCO-2872 Rev-L
2400 x 2400	Untreated Plywood	Up to -/120/30	FCO-2872 Rev-L
2400 x 2400	Masonite Dura-cote & FR Treated Plywood	Up to -/240/30	FCO-2872 Rev-L
2400 x 2400	FR Treated Plywood + Up to 1.5mm thick Metal sheet facing without Metal channel capping	Up to -/240/30	FCO-2872 Rev-L
2400 x 2400	Plywood + Up to 1.5mm thick Metal sheet facing with Metal channel capping	Up to -/120/30	FCO-2872 Rev-L
2400 x 2400	Plywood + Up to 1.5mm thick Acrovyn facing	Up to -/60/30	FCO-2872 Rev-L

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#### TVC40 Maxi Single-leaf Fire Door Up to 3500mmx1500mm in Metal Frames



#### **NOTE**

- Nominal door thickness of 47mm
- Metal frame thickness:1.1mm +/- 15% and rebate size: 51mm x 25mm
- Approved for use in the following wall systems
  - Masonry
  - b. Plasterboard partition
  - AAC Panel
- 4. Approved for surface routing to a depth of 1.2mm and either square or V shape 5mm wide groove in both Dura-cote and MDF door facings
- Approved for FRL up to -/120/30 with a maximum clearance of 20mm between the bottom of the door leaf and the top of the non-combustible sill (FCO-2942, tested to AS1530.4-2005)
- Refer to Table 2 for hinge requirements
- Refer to Table 3 Minimum Firecore FLB-851912 Firebolt® requirements
- Refer to the approved hardware list for Firecore TVC40 Maxi fire door
- Metal frame backfill options
  - a. Cement grout/Mortar
  - b. 13mm or 16mm fire grade plasterboard
  - c. LAF Vermitex TH
- 10. Approved for Plywood, Masonite Dura-cote and MDF facing may include a joint for door up to 3.5m in height

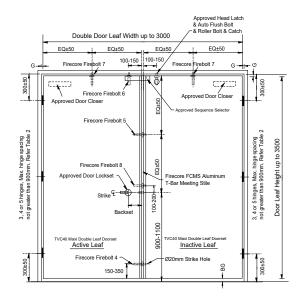
#### AVAILABLE

Maximum Door Leaf Size (H x W) (mm)	Door Facing	Maximum FRL	Reference
3500 x 1500	MDF	Up to -/90/30	FCO-2872 Rev-L
3500 x 1500	Untreated Plywood	Up to -/120/30	FCO-2872 Rev-L
3500 x 1500	Masonite Dura-cote & FR Treated Plywood	Up to -/240/30	FCO-2872 Rev-L
3500 x 1500	FR Treated Plywood + Up to 1.5mm thick Metal sheet facing without Metal channel capping	Up to -/240/30	FCO-2872 Rev-L
3500 x 1500	Plywood + Up to 1.5mm thick Metal sheet facing with Metal channel capping	Up to -/120/30	FCO-2872 Rev-L
3500 x 1500	Plywood + Up to 1.5mm thick Acrovyn facing	Up to -/60/30	FCO-2872 Rev-L

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#### • TVC40 Maxi Double-leaf Fire Door Up to 3500mmx3000mm in Metal Frames



#### NOTE

- Nominal door thickness of 47mm
- 2. Metal frame thickness:1.1mm +/- 15% and rebate size: 51mm x 25mm
- 3. Approved for use in the following wall systems
  - d. Masonry
  - e. Plasterboard partition
  - f. AAC Panel
- 4. Approved for surface routing to a depth of 1.2mm and either square or V shape 5mm wide groove in both Dura-cote and MDF door facings
- 5. Approved for FRL up to -/120/30 with a maximum clearance of 20mm between the bottom of the door leaf and the top of the non-combustible sill (FCO-2942, tested to AS1530.4-2005)
- 6. Refer to Table 2 for hinge requirements
- 7. Refer to Table 3 Minimum Firecore FLB-851912 Firebolt® requirements
- 8. Refer to the approved hardware list for Firecore TVC40 Maxi fire door
- 9. Metal frame backfill options
  - d. Cement grout/Mortar
  - e. 13mm or 16mm fire grade plasterboard
  - f. LAF Vermitex TH
- 10. Approved for Plywood, Masonite Dura-cote and MDF facing may include a joint for door up to 3.5m in height

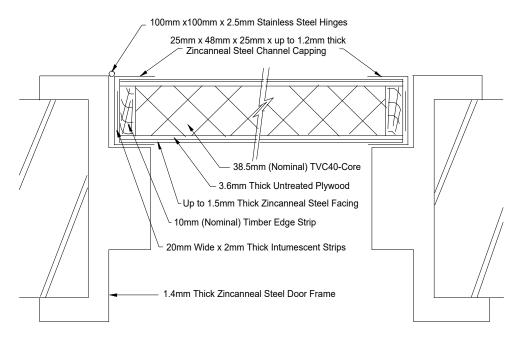
#### • AVAILABLE

Maximum Door Leaf Size (H x W) (mm)	Door Facing	Maximum FRL	Reference
3500 x 3000	MDF	Up to -/90/30	FCO-2872 Rev-L
3500 x 3000	Untreated Plywood	Up to -/120/30	FCO-2872 Rev-L
3500 x 3000	Masonite Dura-cote & FR Treated Plywood	Up to -/240/30	FCO-2872 Rev-L
3500 x 3000	FR Treated Plywood + Up to 1.5mm thick Metal sheet facing without Metal channel capping	Up to -/240/30	FCO-2872 Rev-L
3500 x 3000	Plywood + Up to 1.5mm thick Metal sheet facing with Metal channel capping	Up to -/120/30	FCO-2872 Rev-L
3500 x 3000	Plywood + Up to 1.5mm thick Acrovyn facing	Up to -/60/30	FCO-2872 Rev-L

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#### • TVC40 Maxi Fire Door with External Steel Facing & Steel Channel Capping



Sectional Plan View

#### • NOTE

- 1. Nominal door with steel capping thickness of 49-51mm
- 2. Metal frame thickness:1.4mm +/- 15% and rebate size: (51mm-55mm) x 25mm
- 3. Approved for use in the following wall systems
  - a. Masonry
  - b. Plasterboard partition
  - c. AAC Panel
- 4. The minimum 15mm overlap of steel sheet facing by the perimeter steel channel
- 5. The perimeter steel channel capping 25mm x (48mm-49mm) x 25mm x up to 1.2mm thick to be fixed to the steel sheeting facing with pop rivets at a minimum 500mm centers
- 6. The minimum 20mm wide x 2mm thick intumescent seal required between the steel channel capping and the four door leaf edges as indicated in above Figure
- 7. Refer to <u>Table 2</u> for hinge requirements
- 8. Refer to <u>Table 3</u> Minimum Firecore FLB-851912 Firebolt® requirements
- 9. Refer to the approved hardware list for Firecore TVC40 Maxi fire door
- 10. Metal frame backfill options
  - a. Cement grout/Mortar
  - b. 13mm or 16mm fire grade plasterboard
  - c. LAF Vermitex TH
- 11. Approved for Plywood, Masonite Dura-cote and MDF facing may include a joint for door up to 3.5m in height

#### • <u>AVAILABLE</u>

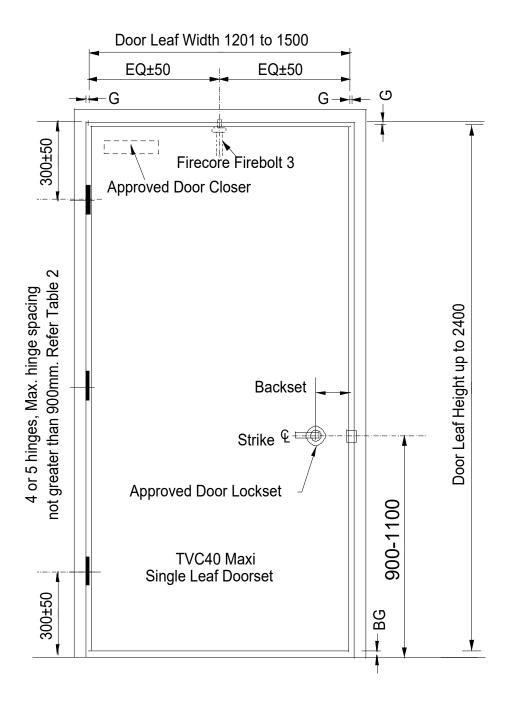
Maximum Door Leaf Size (H x W) (mm)	Door Facing	Maximum FRL	Reference
Single 3500 x 1500 Double 3500 x 3000	Plywood + Up to 1.5mm thick Metal sheet facing with Metal channel capping	Up to -/120/30	FCO-2872 Rev-L

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## FIRECORE TVC40 MAXI FIRE DOORSET

- TVC40 Maxi Large Fire Doorset Hinges and Lock and Firebolt Location Details Refer to Table 2 & Table 3
  - o TVC40 Maxi Single-leaf Fire Door Up to 2400mm height x (1201mm-1500mm) width
    - For FRL Up to -/240/30 applications

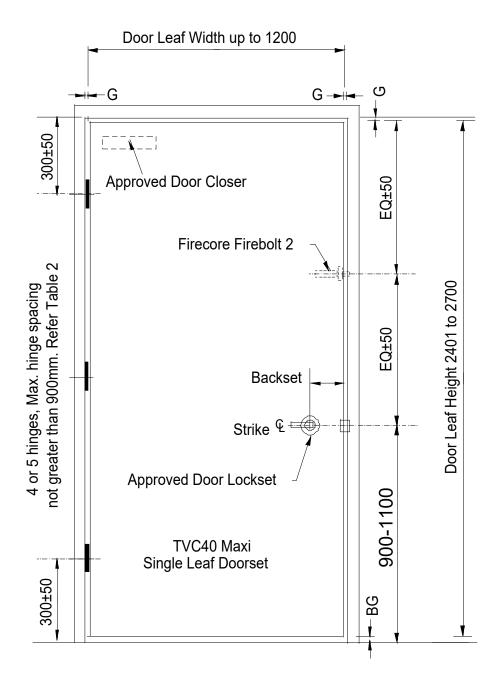


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#### FIRECORE TVC40 MAXI FIRE DOORSET

- TVC40 Maxi Large Fire Doorset Hinges and Lock and Firebolt Location Details Refer to Table 2 & Table 3 (cont'd)
  - o TVC40 Maxi Single-leaf Fire Door Up to (2401-2700mm) height x 1200mm width
    - For FRL Up to -/240/30 applications

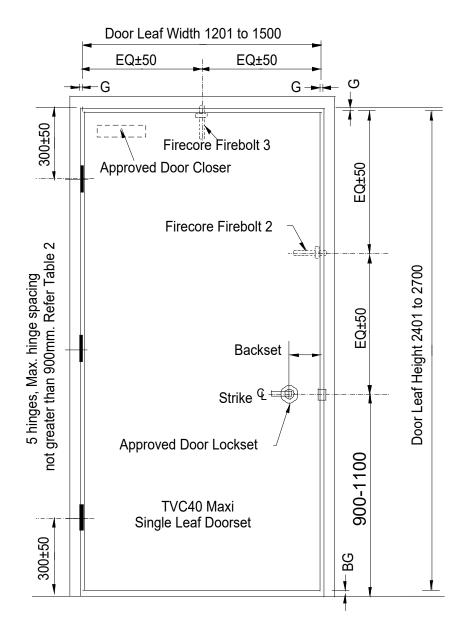


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#### FIRECORE TVC40 MAXI FIRE DOORSET

- TVC40 Maxi Large Fire Doorset Hinges and Lock and Firebolt Location Details Refer to Table 2 & Table 3 (cont'd)
  - TVC40 Maxi Single-leaf Fire Door Up to (2401-2700mm) height x (1201mm-1500mm) width
     For FRL of -/240/30 applications

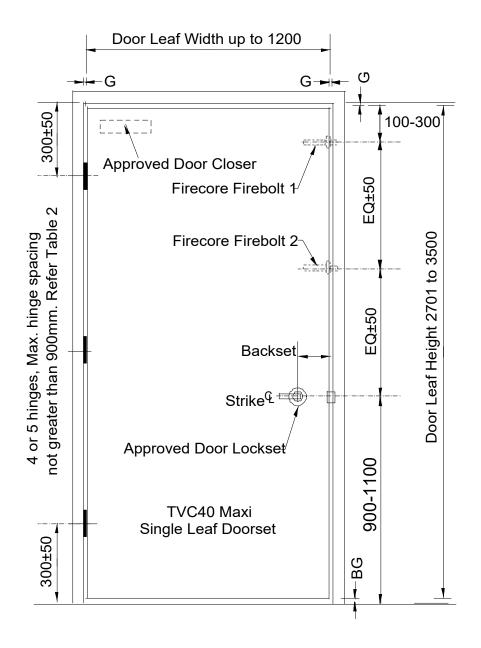


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#### FIRECORE TVC40 MAXI FIRE DOORSET

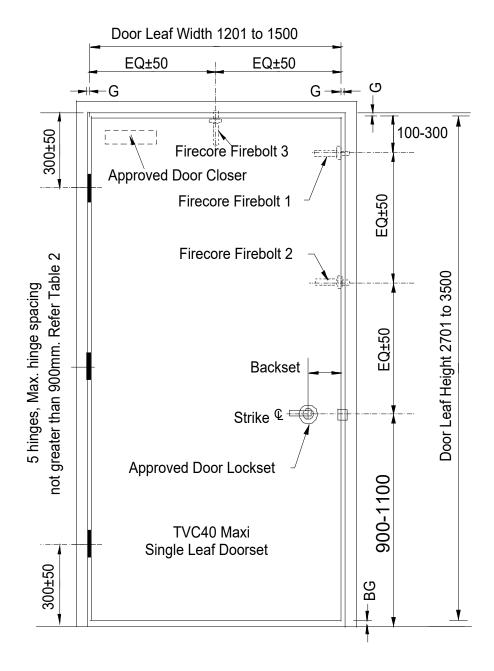
- TVC40 Maxi Large Fire Doorset Hinges and Lock and Firebolt Location Details Refer to Table 2 & Table 3 (cont'd)
  - TVC40 Maxi Single-leaf Fire Door Up to (2701mm-3500mm) height x 1200mm width
    - For FRL of -/240/30 applications





#### FIRECORE TVC40 MAXI FIRE DOORSET

- TVC40 Maxi Large Fire Doorset Hinges and Lock and Firebolt Location Details Refer to Table 2 & Table 3 (cont'd)
  - o TVC40 Maxi Single-leaf Fire Door Up to (2701-3500mm) height x (1201mm-1500mm) width
    - For FRL Up to -/240/30 applications

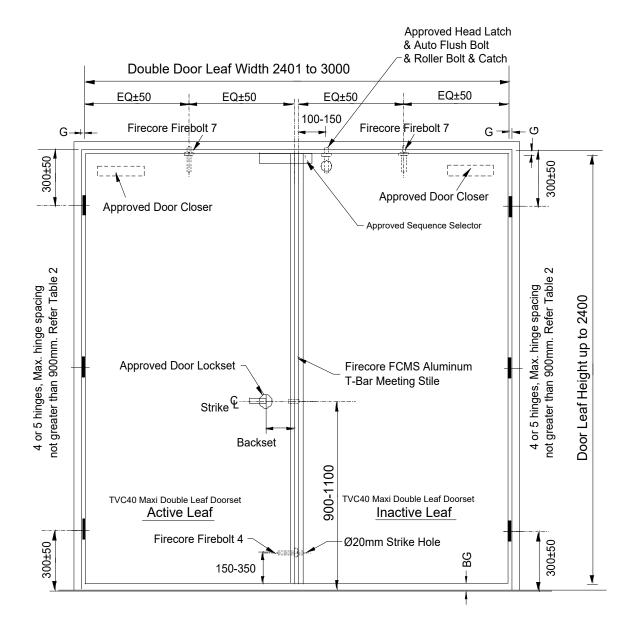


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#### FIRECORE TVC40 MAXI FIRE DOORSET

- TVC40 Maxi Large Fire Doorset Hinges and Lock and Firebolt Location Details Refer to Table 2 & Table 3 (cont'd)
  - TVC40 Maxi Double-leaf Fire Door Up to 2400 height x (2401mm-3000mm) width
    - For FRL Up to -/240/30 applications

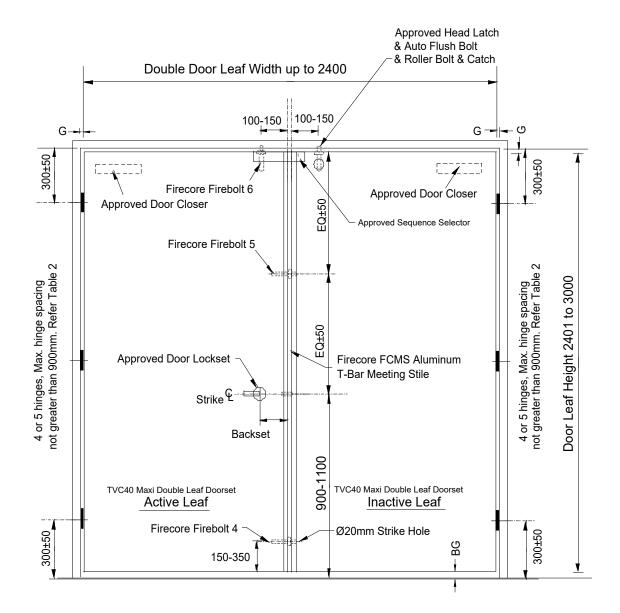


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## FIRECORE TVC40 MAXI FIRE DOORSET

- TVC40 Maxi Large Fire Doorset Hinges and Lock and Firebolt Location Details Refer to Table 2 & Table 3 (cont'd)
  - o TVC40 Maxi Double-leaf Fire Door Up to (2401-3000mm) height x 2400mm width
    - For FRL Up to -/240/30 applications

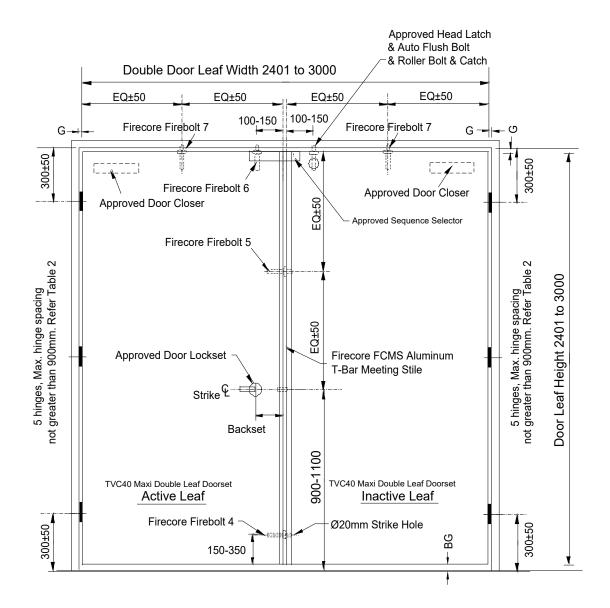


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#### FIRECORE TVC40 MAXI FIRE DOORSET

- TVC40 Maxi Large Fire Doorset Hinges and Lock and Firebolt Location Details Refer to Table 2 & Table 3 (cont'd)
  - TVC40 Maxi Double-leaf Fire Door Up to (2401-3000mm) height x (2401mm-3000mm) width For FRL Up to -/240/30 applications

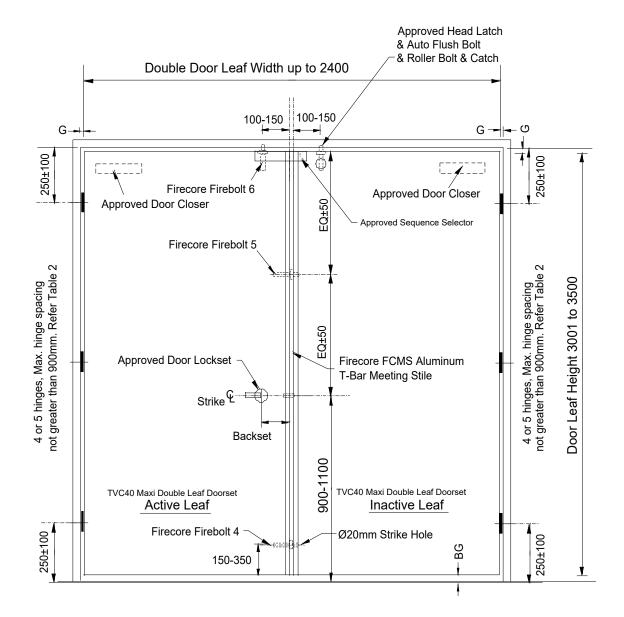


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#### FIRECORE TVC40 MAXI FIRE DOORSET

- TVC40 Maxi Large Fire Doorset Hinges and Lock and Firebolt Location Details Refer to Table 2 & Table 3 (cont'd)
  - TVC40 Maxi Double-leaf Fire Door Up to (3001-3500mm) height x 2400mm width
    - For FRL Up to -/120/30 applications

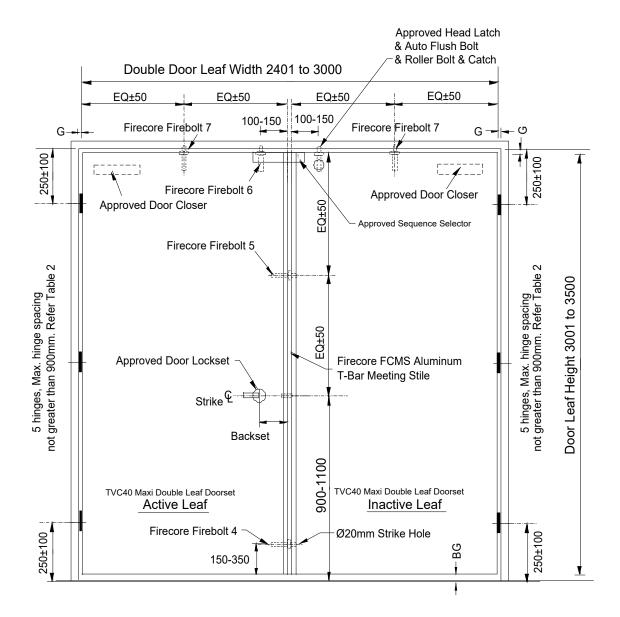


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## FIRECORE TVC40 MAXI FIRE DOORSET

- TVC40 Maxi Large Fire Doorset Hinges and Lock and Firebolt Location Details Refer to Table 2 & Table 3 (cont'd)
  - o TVC40 Maxi Double-leaf Fire Door Up to (3001-3500mm) height x (2401mm-3000mm) width
    - For FRL Up to -/120/30 applications

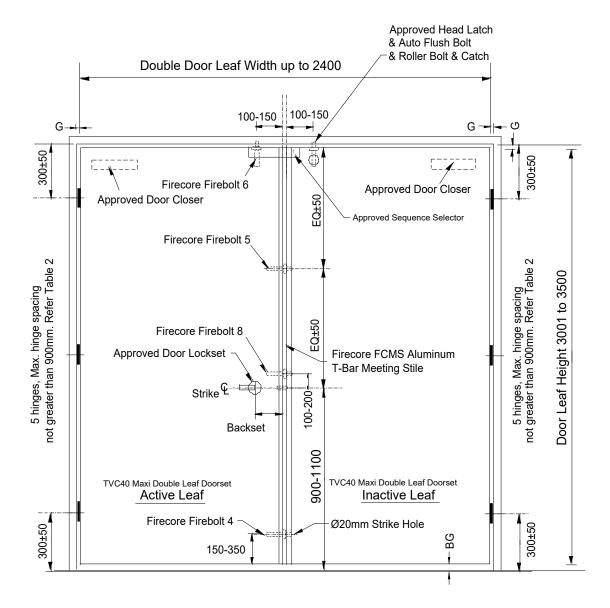


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## FIRECORE TVC40 MAXI FIRE DOORSET

- TVC40 Maxi Large Fire Doorset Hinges and Lock and Firebolt Location Details Refer to Table 2 & Table 3 (cont'd)
  - o TVC40 Maxi Double-leaf Fire Door Up to (3001-3500mm) height x 2400mm width
    - For FRL of -/180/30 and -/240/30 applications

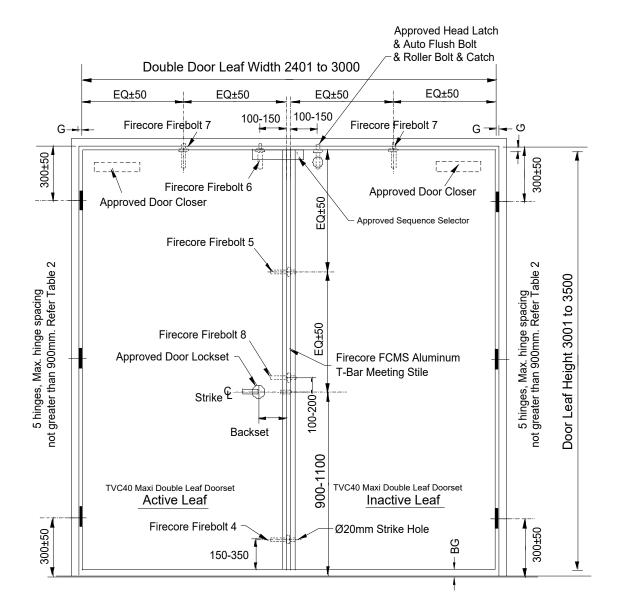


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## FIRECORE TVC40 MAXI FIRE DOORSET

- TVC40 Maxi Large Fire Doorset Hinges and Lock and Firebolt Location Details Refer to Table 2 & Table 3 (cont'd)
  - o TVC40 Maxi Double-leaf Fire Door Up to (3001-3500mm) height x (2401mm-3000mm) width
    - For FRL of -/180/30 and -/240/30 applications



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# FIRECORE TVC-CORE FIRE DOORSET

#### • Table 2: Firecore Fire Door Hinge Requirements

Max. Leaf Height (mm)	Max. Leaf Width (mm)	Number of Hinges	Minimum hinge spacing (centre to centre) (mm)	Maximum hinge spacing (centre to centre) (mm)	Spacing of top and bottom hinge from the edge (mm)	
Up to 1200	Up to 1200	2		700		
	Up to 920	3	200±50			
1201 to 2400	Up to 1200	4				
1201 (0 2400	1201-1500	4				
	1201-1500	5			250±100	
	Up to 1200	4		200±30	900	230±100
2401 to 3000	Up to 1200	5				
	1201-1500	5				
3001 to 3500	Up to 1200	5				
3001 (0 3300	1201-1500	5				

## • Table 3: Minimum Firecore FLB-851912 Series Firebolt® Location Requirements

				Maximum	Door Size (mı	m)		
Type of Doorset	2400 x 1200	2400 x (1201- 1500)	(2401- 2700) x 1200	(2401- 2700) x (1201- 1500)	(2701- 3000) x 1200	(2701- 3000) x (1201- 1500)	(3001- 3500) x 1200	(3001- 3500) x (1201- 1500)
TVC40- Single leaf up to -/240/30	None	Fire bolt 3	Fire bolt 2	Fire bolt 2 Fire bolt 3	Fire bolt 1 Fire bolt 2	Fire bolt 1 Fire bolt 2 Fire bolt 3	Fire bolt 1 Fire bolt 2	Fire bolt 1 Fire bolt 2 Fire bolt 3
TVC40- Double leaf up to -/120/30	None	Fire bolt 4 Fire bolt 7	Fire bolt 4 Fire bolt 5 Fire bolt 6	Fire bolt 4 Fire bolt 5 Fire bolt 6 Fire bolt 7	Fire bolt 4 Fire bolt 5 Fire bolt 6	Fire bolt 4 Fire bolt 5 Fire bolt 6 Fire bolt 7	Fire bolt 4 Fire bolt 5 Fire bolt 6	Fire bolt 4 Fire bolt 5 Fire bolt 6 Fire bolt 7
TVC40- Double leaf up to -/240/30	None	Fire bolt 4 Fire bolt 7	Fire bolt 4 Fire bolt 5 Fire bolt 6	Fire bolt 4 Fire bolt 5 Fire bolt 6 Fire bolt 7	Fire bolt 4 Fire bolt 5 Fire bolt 6	Fire bolt 4 Fire bolt 5 Fire bolt 6 Fire bolt 7	Fire bolt 4 Fire bolt 5 Fire bolt 6 Fire bolt 8	Fire bolt 4 Fire bolt 5 Fire bolt 6 Fire bolt 7 Fire bolt 8

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#### Firecore FLB-851912 Series Firebolt® Installation Instruction Manual

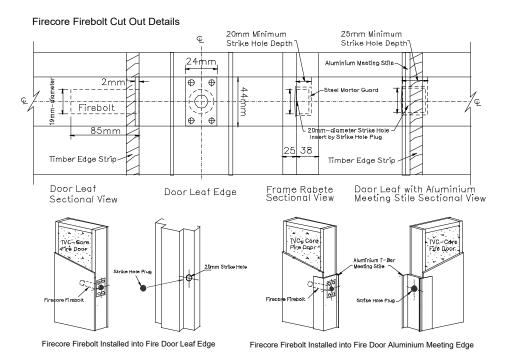
#### Firecore FLB-851912 Firebolt® Description

The purpose Firecore FLB-851912 Firebolt® assembly is to keep the doors in alignment and closed to prevent the spread of smoke and flames during a fire emergency. The firebolt remain retracted under normal conditions and are heat-activated. In a fire, when the temperature of activation is reached – usually around 450°F (230°C), the firebolt projects from the edge of door into the strike hole in the opposite (corresponding) door frame or other door leaf meeting edge. It is important to understand that firebolt projects only during a fire emergency.

FIRECORE TVC-CORE FIRE DOORSET

#### Firecore FLB-851912 Firebolt® installation instructions:

- 1. Firecore FLB-851912 Firebolt® kit contain one firebolt, 4 x (6# x 20mm long) flat head screws and one strike hole plug.
- 2. At the specified location on the edge of the door leaf, drill a hole 19mm in diameter and 85mm deep centrally through timber edge strip and into the TVC-Core. The 0.6mm thick perforated steel reinforcing plate between timber edge strip and TVC-Core is optional.
- 3. Recess a 44mm x 24mm x 2mm rebate for the firebolt retainer cover plate on the timber edge of the door leaf or aluminium meeting stile for double pair doors,
- 4. Insert the firebolt into the hole in the door leaf edge and Screw fixed firebolt to timber edge in place with four provided flat head screws (6# x 20mm long).
- 5. Drill a 20mm diameter strike hole into the corresponding door frame if firebolt installed into perimeter edge of door. The minimum strike hole depth shall be 20mm and steel mortar guard required at back.
- 6. For double pair doors with aluminium meeting stile edge, drill a 20mm diameter, minimum 25mm deep strike hole through the aluminium meeting stile and timber edge strip and into the TVC-Core.
- 7. Insert the strike hole plug into the strike hole.



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## Firecore Fire Doorset Incorporating Various Wall System

Firecore Approved Metal Door Frame Depth and Girth Range								
Doorset Type	Maximum Door Size (mm)	Wall Type	Frame Depth Range	Frame Girth Range	FRL			
TVC20 Single	2400 x 1200				-/60/30			
TVC30-Single TVC40-Single	2400 x 1200	Masonry/Concrete	108mm to 600mm	Up to 1200mm	-/90/30			
TVC40-Double Pair	2400 x 2400	/Rapidwall	108111111 (0 600111111	Ορ το 120011111	-/120/30			
TVC+0 Double Full	(1200/1200)				-/240/30			
	2500 4500				-/60/30			
TVC40-Single	3500 x 1500 3500 x 3000	Masonry/Concrete /Rapidwall	108mm to 600mm	Up to 1200mm	-/90/30			
TVC40-Double Pair	(1500/1500)		108111111 (0 600111111	Ορ το 120011111	-/120/30			
	(1300/1300)				-/240/30			
TVC30-Single TVC40-Single	2400 x 1200 2400 x 1200	Plasterboard Lined	108mm to 416mm	Up to 610mm	-/60/30			
TVC40-Single TVC40-Double Pair	2400 x 2400	Wall	108mm to 216mm	Un to FOOmm	-/90/30			
TVC40-Double Fall	(1200/1200)		10811111 (0 210111111	Up to 590mm	-/120/30			
T) (CAO Cin ala	3500 x 1500	Diagram and Lines			-/60/30			
TVC40-Single TVC40-Double Pair	3500 x 3000	Plasterboard Lined Wall	108mm to 216mm	Up to 590mm	-/90/30			
1 VC40-Double Pall	(1500/1500)	vvaii			-/120/30			
TVC30-Single	2400 x 1200 2400 x 1200	Hebel/Walsc AAC			-/60/30			
TVC40-Single TVC40-Double Pair	2400 x 2400	Wall (Single Panel	108mm to 416mm	Up to 610mm	-/90/30			
	(1200/1200)	with Stud Wall)			-/120/30			
T) (0.40 S)	3500 x 1500	Hebel/Walsc AAC			-/60/30			
TVC40-Single TVC40-Double Pair	3500 x 3000	Wall (Single Panel	108mm to 216mm	Up to 590mm	-/90/30			
TVC40-Double Pair	(1500/1500)	with Stud Wall)			-/120/30			
TVC30-Single TVC40-Single	2400 x 1200 2400 x 1200	Hebel/Walsc AAC	108mm to 216mm	Up to 590mm	-/60/30			
TVC40-Double Pair	2400 x 2400	Wall (Shaft Wall)	10011111110 210111111	op to 33011111	-/90/30			
	(1200/1200)				-/120/30			
TVC40-Single	3500 x 1500	Hebel/Walsc AAC		Up to 590mm	-/60/30			
TVC40-Double Pair	3500 x 3000	Wall (Shaft Wall)	1 108mm to 216mm 1		-/90/30			
	(1500/1500)	Tran (enait tran)			-/120/30			
TVC30-Single TVC40-Single	2400 x 1200 2400 x 1200	Hebel/Walsc AAC Wall (Double Panel	108mm to 416mm	Up to 610mm	-/60/30			
TVC40-Double Pair	2400 x 2400	Wall (Bodble Faller	108mm to 216mm	Up to 590mm	-/90/30			
	(1200/1200)	,	100111111 (0 210111111	ווווווספכ טו קט	-/120/30			
T)/C40 Single	3500 x 1500	Hebel/Walsc AAC			-/60/30			
TVC40-Single TVC40-Double Pair	3500 x 3000	Wall (Double Panel	108mm to 216mm	Up to 590mm	-/90/30			
1 VC+0-DOUDIE FAII	(1500/1500)	Wall)			-/120/30			
TVC30-Single TVC40-Single	2400 x 1200 3000 x 1200	Speedpanel Wall	108mm to 416mm	Up to 610mm	-/60/30			
TVC40-Single TVC40-Double Pair	3000 x 2400	Speeupanei wali	108mm to 216mm	Un to 500	-/90/30			
1. CTO DOUBLE I dil	(1200/1200)		100111111 (0 210111111	Up to 590mm	-/120/30			

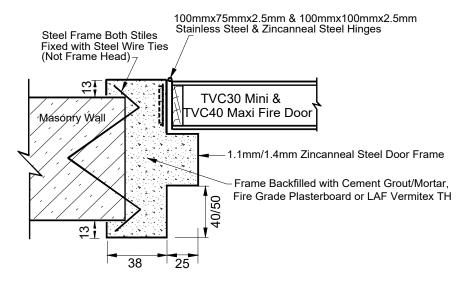
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Tel: 0425 308 830 Fax: 02-9401 9176 Web: <a href="www.firecore.com.au">www.firecore.com.au</a> Email: <a href="mailto:adamzhang@firecore.com.au">adamzhang@firecore.com.au</a>

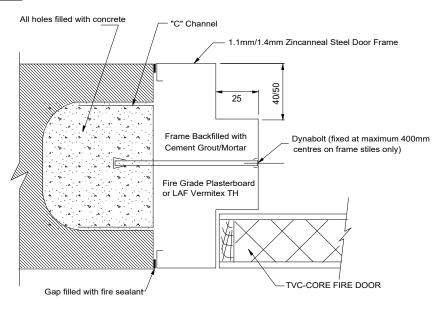


## Firecore Fire Doorset Incorporating Various Wall System

#### • Backfilled Steel Frame fitted to Masonry Wall – 240 minutes applications



# • <u>Backfilled Steel Frame retrofitted to Rapid & Block Wall – 240 minutes applications</u>



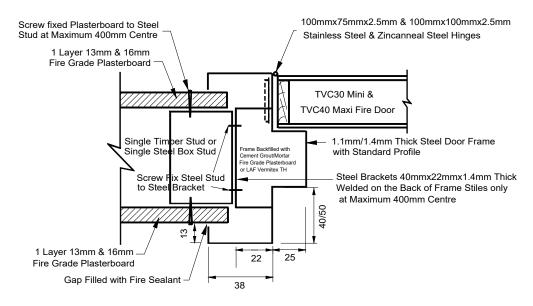
Approved Metal Door Frame Depth and Girth Range							
Doorset Type	Maximum Door Size (mm)	Wall Type	Frame Depth Range	Frame Girth Range	FRL		
T) (C) O Circ - I -	2400 x 1200				-/60/30		
TVC30-Single TVC40-Single	2400 x 1200	Masonry/Concrete /Rapidwall	108mm to 600mm	Up to 1200mm	-/90/30		
TVC40-Siligie	2400 x 2400		/Rapidwall	100111111 to 000111111	Ορ το 120011111	-/120/30	
1 VC40-Double Fall	(1200/1200)				-/240/30		
					-/60/30		
TVC40-Single	3500 x 1500	Masonry/Concrete	100	Up to 1200mm	-/90/30		
TVC40-Double Pair	3500 x 3000 (1500/1500)	/Rapidwall	108mm to 600mm		-/120/30		
	(1300/1300)				-/240/30		

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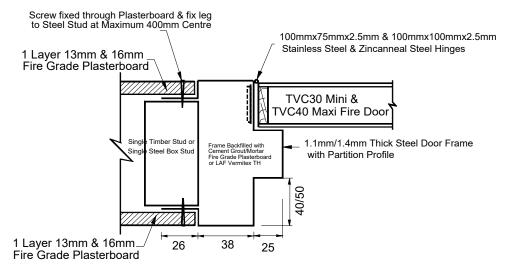


## Firecore Fire Doorset Incorporating Various Wall System

• <u>Backfilled Steel Brackets Fixing Steel Frame fitted to Timber or Steel Stud Wall 60-minute applications</u>



• <u>Backfilled Partition Profile Steel Frame fitted to Timber or Steel Stud Wall 60-minute applications</u>



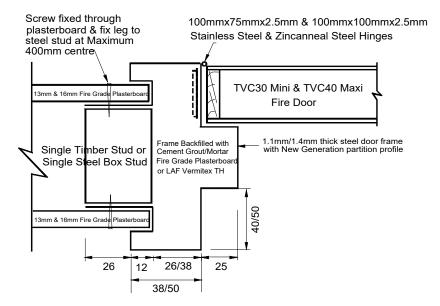
Approved Metal Door Frame Depth and Girth Range							
Maximum Door Size (mm)	Wall Type	Frame Depth Range	Frame Girth Range	FRL			
2400 x 1200 2400 x 1200	Plasterboard Lined	108mm to 416mm	Up to 610mm	-/60/30			
2400 x 2400 (1200/1200)	Wall	108mm to 216mm	Up to 590mm	-/90/30 -/120/30			
3500 x 1500 3500 x 3000 (1500/1500)	Plasterboard Lined Wall	108mm to 216mm	Up to 590mm	-/60/30 -/90/30 -/120/30			
	Maximum Door Size (mm)  2400 × 1200 2400 × 1200 2400 × 2400 (1200/1200)  3500 × 1500	Maximum Door Size (mm)  2400 x 1200 2400 x 1200 2400 x 2400 (1200/1200)  3500 x 1500 3500 x 3000  Plasterboard Lined Wall  Plasterboard Lined Wall	Maximum Door Size (mm)         Wall Type         Frame Depth Range           2400 x 1200 2400 x 1200 2400 x 2400 (1200/1200)         Plasterboard Lined Wall         108mm to 416mm           3500 x 1500 3500 x 3000         Plasterboard Lined Wall         108mm to 216mm	Maximum Door Size (mm)         Wall Type         Frame Depth Range         Frame Girth Range           2400 x 1200 2400 x 1200 2400 x 2400 (1200/1200)         Plasterboard Lined Wall         108mm to 416mm         Up to 610mm           108mm to 216mm         Up to 590mm           3500 x 1500 3500 x 3000         Plasterboard Lined Wall         108mm to 216mm         Up to 590mm			

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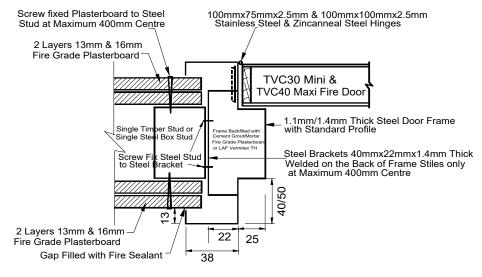


## Firecore Fire Doorset Incorporating Various Wall System

**Backfilled New Generation Profile Steel Frame fitted to Timber or Steel Stud Wall** 60-minute applications



**Backfilled Steel Brackets Fixing Steel Frame fitted to Timber or Steel Stud Wall** 90 or 120-minute applications



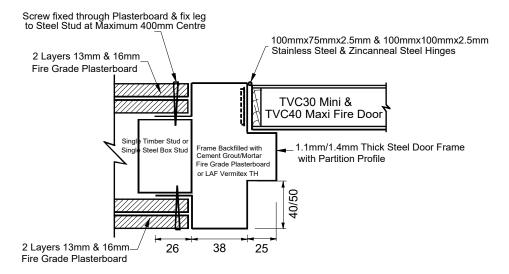
Approved Metal Door Frame Depth and Girth Range						
Doorset Type	Maximum Door Size (mm)	Wall Type	Frame Depth Range	Frame Girth Range	FRL	
TVC30-Single TVC40-Single TVC40-Double Pair	2400 x 1200 2400 x 1200	Plasterboard Lined Wall	108mm to 416mm	Up to 610mm	-/60/30	
	2400 x 2400		108mm to 216mm	Up to 590mm	-/90/30	
	(1200/1200)				-/120/30	
TVC40-Single TVC40-Double Pair	3500 x 1500	0 Plasterboard Lined Wall	108mm to 216mm	Up to 590mm	-/60/30	
	3500 x 3000				-/90/30	
	(1500/1500)				-/120/30	

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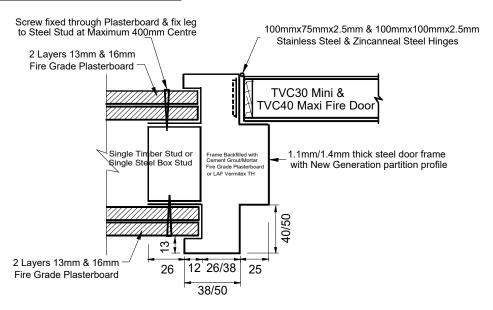


## Firecore Fire Doorset Incorporating Various Wall System

• <u>Backfilled Partition Profile Steel Frame fitted to Timber or Steel Stud Wall</u> 90 or 120-minute applications



• <u>Backfilled New Generation Profile Steel Frame fitted to Timber or Steel Stud Wall 90 or 120-minute applications</u>



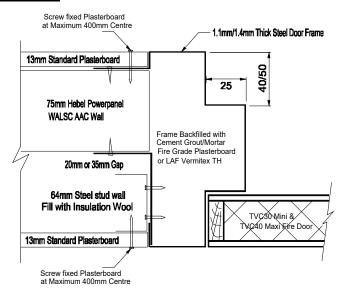
Approved Metal Door Frame Depth and Girth Range							
Doorset Type	Maximum Door Size (mm)	Wall Type	Frame Depth Range	Frame Girth Range	FRL		
TVC30-Single TVC40-Single TVC40-Double Pair	2400 x 1200 2400 x 1200	Plasterboard Lined Wall	108mm to 416mm	Up to 610mm	-/60/30		
	2400 x 2400		108mm to 216mm	Up to 590mm	-/90/30		
	(1200/1200)				-/120/30		
TVC40-Single TVC40-Double Pair	3500 x 1500	Plasterboard Lined Wall	108mm to 216mm	Up to 590mm	-/60/30		
	3500 x 3000				-/90/30		
	(1500/1500)	vvan			-/120/30		

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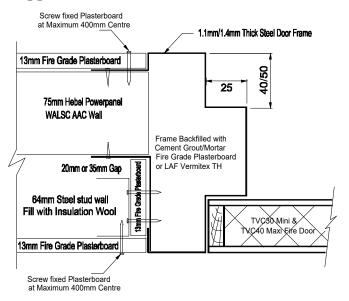


## Firecore Fire Doorset Incorporating Various Wall System

#### • <u>Backfilled Steel Frame fitted to Hebel or WALSC AAC Wall System</u> 60-minute applications



# • Backfilled Steel Frame fitted to Hebel or WALSC AAC Wall System 90 or 120-minute applications



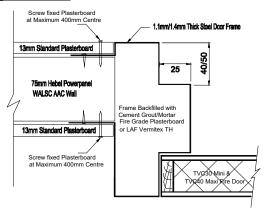
Approved Metal Door Frame Depth and Girth Range							
Doorset Type	Maximum Door Size (mm)	Wall Type	Frame Depth Range	Frame Girth Range	FRL		
TVC30-Single TVC40-Single TVC40-Double Pair	2400 x 1200 2400 x 1200	Hebel/Walsc AAC Wall (Single Panel with Stud Wall)	108mm to 416mm	Up to 610mm	-/60/30		
	2400 x 2400				-/90/30		
	(1200/1200)				-/120/30		
TVC40-Single TVC40-Double Pair	3500 x 1500	Hebel/Walsc AAC		Up to 590mm	-/60/30		
	3500 x 3000	Wall (Single Panel	108mm to 216mm		-/90/30		
	(1500/1500)	with Stud Wall)			-/120/30		

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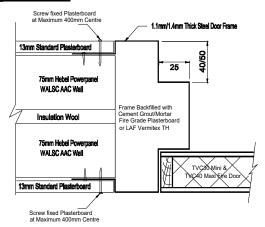
## Firecore Fire Doorset Incorporating Various Wall System

• Backfilled Steel Frame fitted to Hebel or WALSC AAC Wall System 90 or 120-minute applications



Approved Metal Door Frame Depth and Girth Range							
Doorset Type	Maximum Door Size (mm)	Wall Type	Frame Depth Range	Frame Girth Range	FRL		
TVC30-Single TVC40-Single TVC40-Double Pair	2400 x 1200 2400 x 1200	Hebel/Walsc AAC Wall (Shaft Wall)	108mm to 216mm	Up to 590mm	-/60/30		
	2400 x 2400 (1200/1200)				-/90/30 -/120/30		
TVC40-Single TVC40-Double Pair	3500 x 1500	Hebel/Walsc AAC Wall (Shaft Wall)	108mm to 216mm	Up to 590mm	-/60/30		
	3500 x 3000				-/90/30		
	(1500/1500)				-/120/30		

• Backfilled Steel Frame fitted to Hebel or WALSC AAC Wall System 90 or 120-minute applications



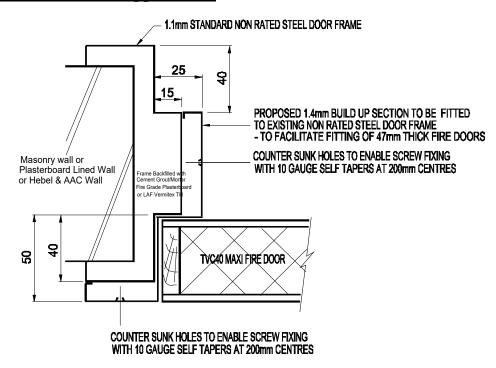
Doorset Type	Maximum Door Size (mm)	Wall Type	Frame Depth Range	Frame Girth Range	FRL
TVC30-Single TVC40-Single TVC40-Double Pair	2400 x 1200 2400 x 1200	Hebel/Walsc AAC Wall (Double Panel Wall)	108mm to 416mm	Up to 610mm	-/60/30
	2400 x 2400 (1200/1200)		108mm to 216mm	Up to 590mm	-/90/30 -/120/30
TVC40-Single TVC40-Double Pair	3500 x 1500	Hebel/Walsc AAC			-/60/30
	3500 x 3000	Wall (Double Panel		Up to 590mm	-/90/30
	(1500/1500)	Wall)			-/120/30

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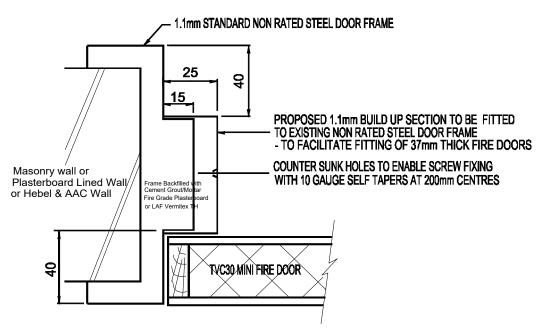


### Firecore Fire Doorset Incorporating Various Wall System

Mini non-fire-rated frame built up for a Maxi doorset for 60, 90 or 120-minute applications



Mini non-fire-rated frame built up for a Mini doorset for 60, 90 or 120-minute applications

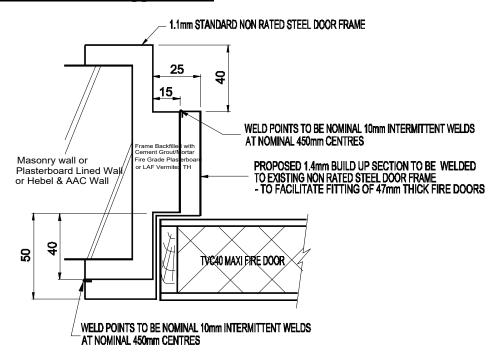


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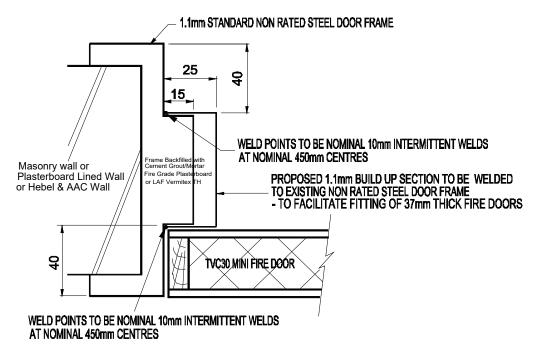


# Firecore Fire Doorset Incorporating Various Wall System

• Mini non-fire-rated frame built up for a Maxi doorset for 60, 90 or 120-minute applications



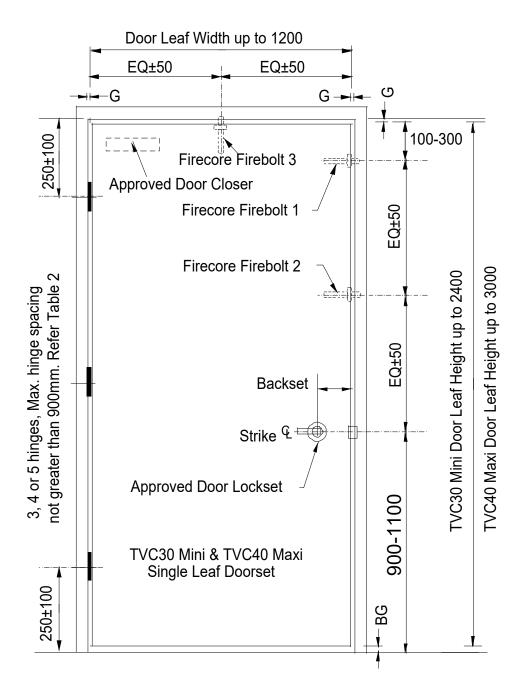
• Mini non-fire-rated frame built up for a Mini doorset for 60, 90 or 120-minute applications



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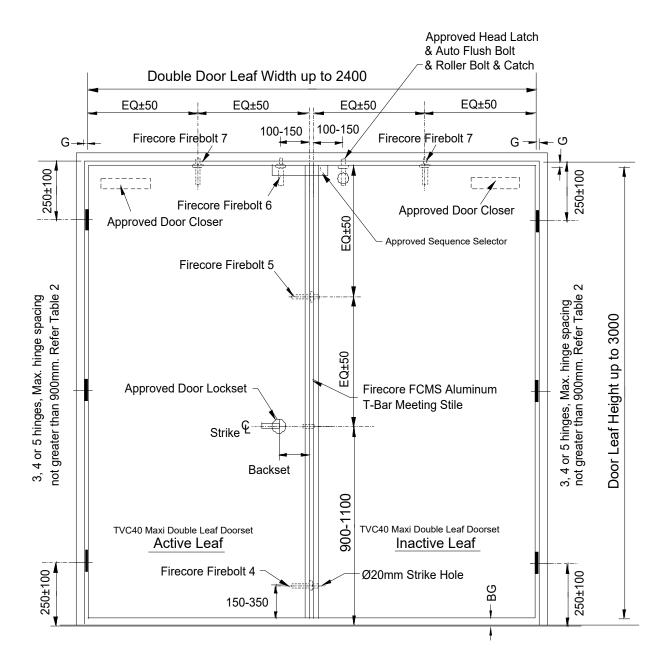
• TVC30 Mini and TVC40 Maxi Single-leaf Fire Doorset fitted to Speedpanel Wall - Hinges and Lock and Firebolt Location Details - Refer to Table 2 & Table 4



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• TVC40 Maxi Double-leaf Fire Doorset fitted to Speedpanel Wall
- Hinges and Lock and Firebolt Location Details - Refer to Table 2 & Table 4



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# • <u>Table 4: Minimum Firecore FLB-851912 Series Firebolt® Location Requirements for Speedpanel Wall</u>

	Maximum Door Size (mm)						
Type of Doorset	2400 x 1200 (Cement grout filled frame only)	2400 x 920	2400 x (921- 1200)	(2401-3000) x 920	(2401-3000) x (921-1200)		
TVC30-Single leaf up to -/120/30	None	Fire bolt 1	Fire bolt 1 Fire bolt 3	NA	NA		
TVC40-Single leaf up to -/120/30	None	Fire bolt 1	Fire bolt 1 Fire bolt 3	Fire bolt 1 Fire bolt 2	Fire bolt 1 Fire bolt 2 Fire bolt 3		
TVC40-Double leaf up to -/120/30	None	Fire bolt 4 Fire bolt 6	Fire bolt 4 Fire bolt 6 Fire bolt 7	Fire bolt 4 Fire bolt 5 Fire bolt 6	Fire bolt 4 Fire bolt 5 Fire bolt 6 Fire bolt 7		

#### • Approved Metal Door Frame Depth and Girth Range for Speedpanel Wall

Doorset Type	Maximum Door Size (mm)	Wall Type	Frame Depth Range	Frame Girth Range	FRL
TVC30-Single TVC40-Single TVC40-Double Pair	2400 x 1200 3000 x 1200	Speedpanel Wall	108mm to 416mm	Up to 610mm	-/60/30
	3000 x 2400 (1200/1200)		108mm to 216mm	Up to 590mm	-/90/30 -/120/30

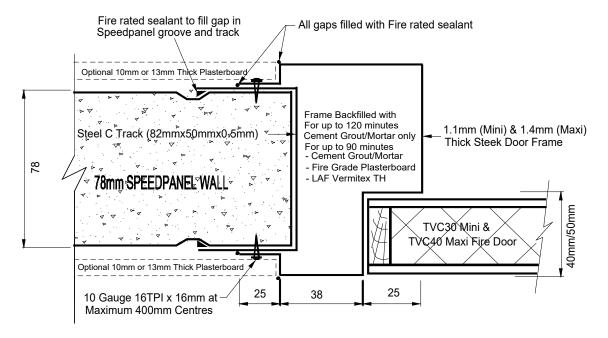
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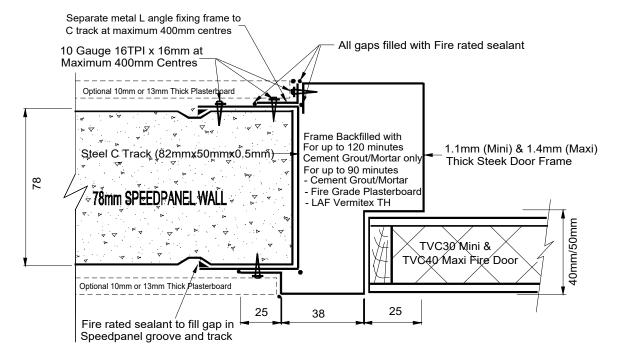


### Firecore Fire Doorset Incorporating Speedpanel Wall System

Backfilled steel frame and wall junction for Speedpanel wall detail 60, 90 or 120-minute applications



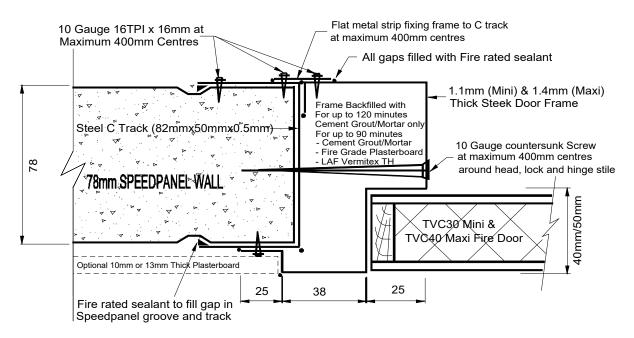
Backfilled steel frame and wall junction for Speedpanel wall detail 60, 90 or 120-minute applications



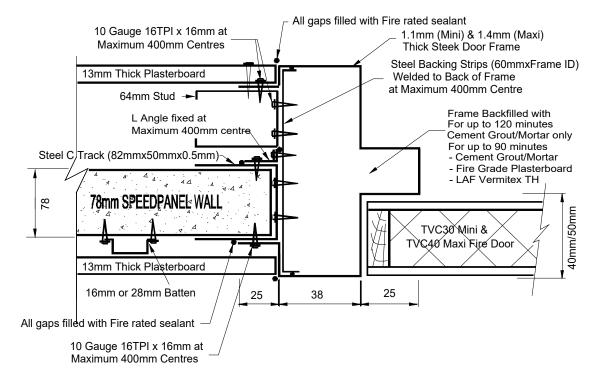
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# • <u>Backfilled steel frame and wall junction for Speedpanel wall detail</u> 60, 90 or 120-minute applications



# • <u>Backfilled steel frame and wall junction for Speedpanel wall detail</u> 60-minute applications



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