



External Doors Online



FIRE DOORSET **INSTALLATION GUIDE**

November 2021

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SAFETY CRITICAL INFORMATION

These installation instructions are relevant for Door-Stop International fire doorsets, suitable for internal and external use and certificated to:

- Warringtonfire Certifire Certificate number CF 5906 (Certificated for Fire)
- Warringtonfire Certisecure Certificate number CS 5112/ Certificate number Certifire CF 5863 (Certificated for Security and Fire)

Fire Doorsets are unlike normal doors, they are complex systems of components, tested and third party certificated by independent parties.

They are life safety critical products.

Door-Stop fire doorsets must be installed strictly in accordance with the certificate, data sheet and the installation instructions to achieve the intended performance. Failure to adequately install the doorsets will result in a failure to meet the certification and/or invalidate the warranties and certification of the product.

The installation guide includes installation instructions, information on the type of components required and the level of competence required for installation and inspection of the doorset. It is critical that you read, understand and follow the instructions in full to avoid invalidating the certification and/or the product warranties.

It is your responsibility to follow the guidance correctly and in full and to ensure that the doorsets are installed by a competent installer, using the correct materials to the exact specification. If you fail to follow the instructions, this could impact on the performance of the doorset in a fire and will invalidate the certification of the fire doorset and the warranties provided.

It is the building designer's responsibility and not that of Door-Stop, to ensure that the correct doorset specification is used for the particular development, construction or building type used in the building.

Please refer to our terms and conditions for a full set of our warranties.

Minimum certification requirements must be followed in their entirety in order to ensure a compliant installation.

The certificate and data sheet can be downloaded from www.warringtonfire.com.

Further information can be found at www.masonite.co.uk/firedoorsets



DOCUMENTING THE INSTALLATION

Door-Stop recommend that the installation be documented in order to demonstrate methods and materials used for installation, as it may need to be scrutinised by third parties to evaluate compliance. Documentation of installation may include (the following list is a recommendation and is not exhaustive):

- A copy of the Door-Stop Fire Doorset installation instructions.
- Record of the unique traceability number on the label.
- A copy of the supporting documentation of the chosen perimeter wall to frame lineal gap sealing materials and methods.
- Documentation of checks or inspections that were undertaken throughout the installation process.
- The date and identification of who carried out the installation.
- The specification of fixings.
- Photographic or film evidence of the installation process.



COMPETENT INSTALLERS

It is recommended that competent installers are used for the installation, inspection and maintenance of fire doorsets. One way of demonstrating competence is to engage third party certificated installers.



LABELS, TRACEABILITY AND CERTIFICATION

Traceability labels on the hinge edge of the door leaf provide a critical traceability link from the specific doorset back to the manufacturer and relevant certification throughout the life service of a product.

The label references the specific certificate and data sheet relating to the doorset, and the unique traceability number of the label provides traceability to the manufacturing processes, raw materials and components that relate to the specific doorset.

The certificate and data sheet can be downloaded from www.warringtonfire.com.

The removal of the label/s will result in a failure to meet the certification and therefore invalidate the warranties.

Labels must not be damaged or removed. Labels cannot be replaced without an on-site inspection of the product by a Door-Stop International representative and will incur an additional charge.



REPLACING BROKEN GLASS

Glazing cannot be replaced within the fire doorset or toplight on site, without invalidating certification. If glass is broken, please contact Door-Stop International.



SUBSTITUTING COMPONENTS

Door-Stop International do not recommend any components of a fire doorset are substituted for components of a different specification. Substituting components of a different specification than that allowed by certification will invalidate product certification, warranties and may present safety and performance risk in a fire.

REPLACING COMPONENTS

If throughout the life of the doorset a component replacement is required, it is critical that the components exactly match those listed on the relevant fire certificates and data sheet for this specific doorset and that the relevant intumescent protection and fixings are used.

Changing specification of any components will invalidate product certification, warranties and may present safety and performance risk in a fire.

Any maintenance works should be carried out by a competent person, documented and kept as part of the building record and fire door register.

Door-Stop International are able to supply replacement components, please contact Door-Stop International for further information.



INSPECTION

Inspections of all fire doors should be undertaken by a competent person. Frequency of inspection can depend on location, design and usage of the doorset. Door-Stop International recommends that doorsets are inspected by a competent person, every three months (minimum), and that inspection (and any maintenance works) are documented. In high traffic areas, such as common areas, corridors and stairwells it is recommended that doorsets may require more frequent inspection, in order to identify any wear and tear or product damage.

Inspection should include all parts of the doorset, including the door closer. Checks should be made to ensure that the door leaf closes and latches from any angle, the variable speed of the door closer is adjusted to ensure safe operation and the door closer has been adjusted to ensure that the appropriate opening and closing forces have been achieved.

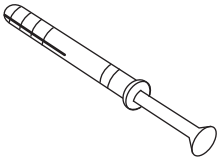


MANUAL HANDLING

Fire doorsets are extremely heavy. It is recommended that a minimum of two people undertake the installation to ensure safe methods of working are maintained. It is recommended that individuals are specifically trained in manual handling to avoid injury and a full risk assessment and method statement is provided, prior to installation commencing.

MATERIALS REQUIRED

WALL FIXINGS



Fixings are required that are suitable for the specific wall type construction the doorset is being secured into. The fixings must allow a minimum 45mm penetration into the wall structure, excluding the door frame and gap between the frame and the wall. The fixing should be of a minimum size of 4.8mm diameter countersunk fixing.

This image is for illustrative purposes only – the specific wall fixing must be selected in accordance to the specific wall type. Please check the certificate for the allowable wall types.

In external installations, consideration may be given to the material and finish of fixings to ensure they are suitable for external locations.

LINEAL GAP SEALING - FIRE AND SMOKE PROTECTION

There are a number of solutions for lineal gap sealing systems that are compatible and compliant with certification of the Door-Stop Fire doorset.

Door-Stop International hold primary test evidence (Fire and Smoke leakage) for the following products, tested with the Door-Stop Fire doorset.

Option A: Rockwool RWA45 (backfilling material), capped on both faces with (minimum) 10mm deep FSi Ltd Pyrocoustic Intumescent Sealant.

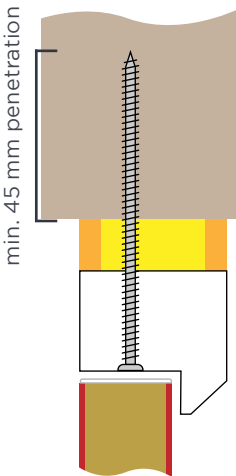
OR

Option B: Unifrax Insulfrax LTX blanket (backfilling material), capped on both faces with (minimum) 10mm deep Firewise Intumescent and Acoustic Sealant.

Alternatively, certification allows the use of Certifire approved lineal gap sealing systems, subject to the conditions listed in the relevant certificate. Failure to meet the requirements stated within the specific lineal gap certification will invalidate the warranties.

The scope of any potential Certifire approved lineal gap sealing systems should be thoroughly reviewed by the building designer. This is to confirm that the limitations stated within the specific lineal gap certification are compatible with the specific installation scenario on site.

Factors for consideration may include (this list is not exhaustive); the width and depth of lineal gap to be filled, compatibility with the specific wall / floor construction type and whether the proposed lineal gap sealing solution provides both smoke leakage and fire protection.





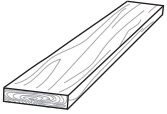
SEALING - WEATHER PROTECTION

To protect the fire and smoke lineal gap seal from external weather and environmental conditions, care should be taken to ensure that suitable sealing and inclusion of damp proof membranes (where applicable) is undertaken around any externally exposed areas.



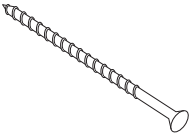
PACKERS OF PLASTIC, HARDWOOD OR PLYWOOD

Plastic, hardwood or plywood packers must be used in the correct location behind frame fixings.



LINING OF APERTURES

The aperture may be lined with hardwood which shall be continuous and of a minimum width 85mm and minimum thickness of 25mm.



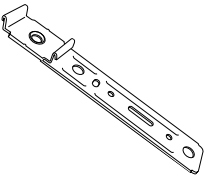
FRAME FIXINGS

Each door frame jamb to be fixed through to the wall at not less than four points with steel or nylon frame fixings at minimum 600mm centres penetrating the wall to at least 45mm.

The option to utilise VEKA steel frame fixing straps is also permitted, when installed using steel fixings with steel or nylon plugs penetrating the wall by at least 40mm at maximum of 600mm centres.

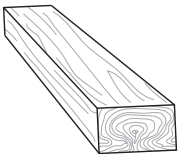
TOPLIGHT FIXINGS

Each toplight is to be secured to the door frame using couplers and straps, but additionally require 1 No VEKA Steel frame fixings strap to each vertical edge, to be positioned approximately centrally within the toplight height. The VEKA steel frame fixing straps will be screwed to the external face of the VEKA Halo system 10 frame and screwed into the wall construction. Straps are to be fixed using steel fixings with steel or nylon plugs penetrating the wall to at least 40mm.



Alternatively, toplights may be fixed through to the wall at not less than one point of each vertical edge with steel or nylon frame fixing to be positioned approximately centrally within the toplight height, penetrating the wall to at least 45mm. These fixings must be oriented to the internal side of the doorset.

Doorsets shall be installed in accordance with the manufacturer's installation instructions. Suitable CERTIFIRE approved lineal gap sealing may also be utilised to protect the frame/supporting construction gap, subject to the conditions contained within the relevant certificate.

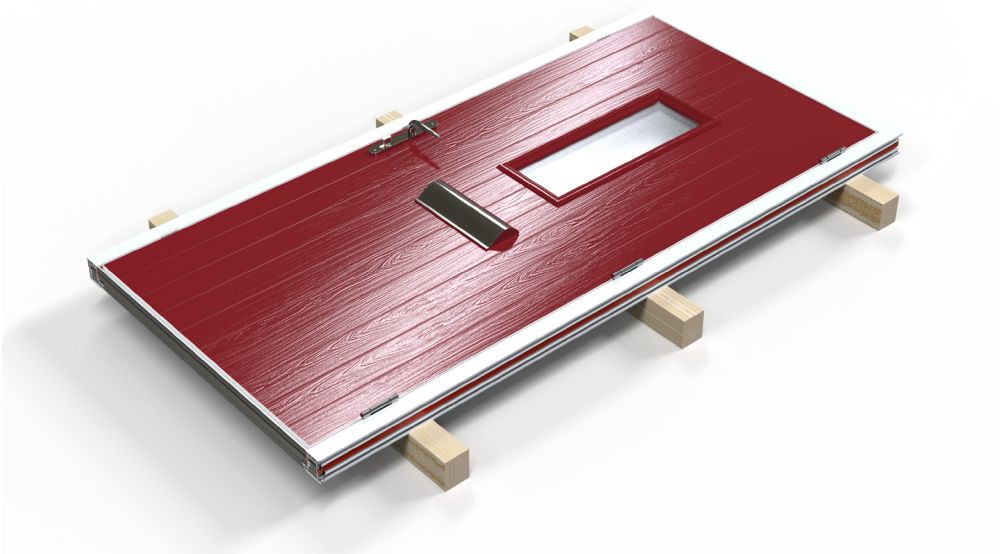


TEMPORARY FLOOR PACKER

A floor packer may be used to help stabilise the door leaf when it is opened from the frame, before all wall fixings have been installed.

BEFORE YOU START

- Carry out a full survey of the installation location to allow for planning of the installation prior to starting.
- Minimise storage before installation to minimise damage.
- If storage must occur, the doorset must be laid flat on at least 3 x equally spaced bearers. Doorsets must not be stacked on top of each other.
- Doorsets should be stored in a dry internal environment, similar in temperature and humidity of the final installation location to prevent bowing or warping.
- Do not remove the door leaf from the frame, or the packers from between the door leaf and the frame.
- Toplights are supplied fully factory glazed and pre-fitted with coupler and fixing brackets.
- Toplights must not be de-glazed for installation, as this will invalidate the certification.



DOORSET WITH / WITHOUT TOPLIGHT

For a doorset WITH a toplight, follow Steps A - K and then Steps 1 - 11.

For a doorset WITHOUT a toplight, follow Steps 1 - 11.

EXTERNAL DOORSETS – additional considerations prior to installation

For doorsets fitted in external locations, check that the damp proof membrane (where applicable) is in the correct location and is not damaged.

Door-Stop fire doorsets are available with additional cill components for external locations.

When the product is delivered, the cill component is separate to the doorset and must be installed into position in the aperture before installation of the doorset.

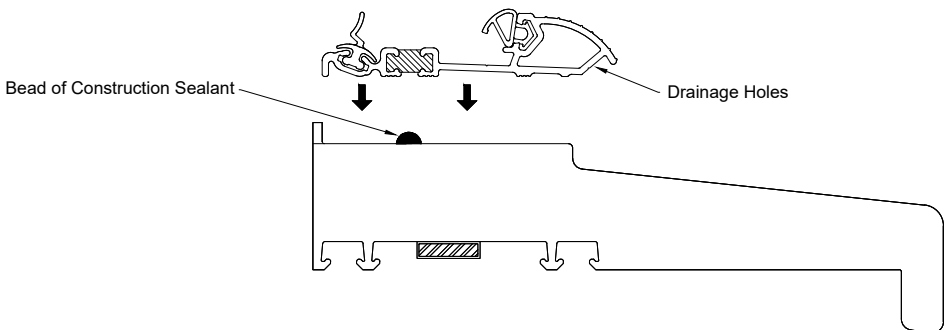
Step 1: Position the cill in the correct location. Ensure the surface that the cill is located onto is level and free from debris.

Secure the cill to a non combustible surface below.

Step 2: Remove the protective cover of the seals immediately prior to the doorset being positioned on top of it. This is to ensure that the seals do not become contaminated with debris, preventing a robust seal between the cill and threshold. (see step 1, on page 13)

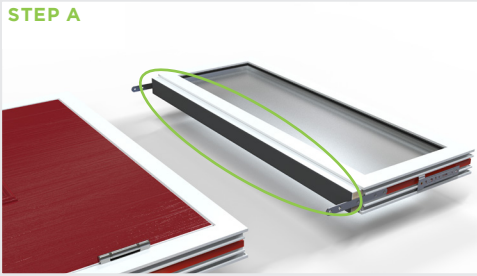
Proceed with installation of the doorset as described in this manual.

Complete the post installation checks noted on page 19.



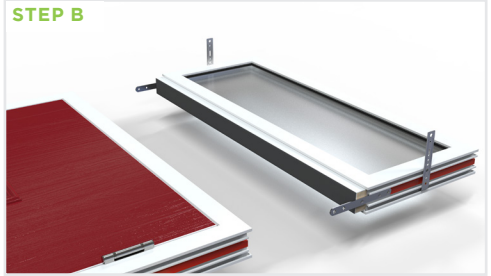
TOPLIGHT INSTRUCTIONS

STEP A



Inspect the coupler of the top light that is factory fixed to the top light frame. Confirm the grey intumescent 1mm thick pad that is applied to the coupler face where it will join to the doorset frame is not damaged. If it is damaged - do not proceed and contact Door-Stop for replacement.

STEP B

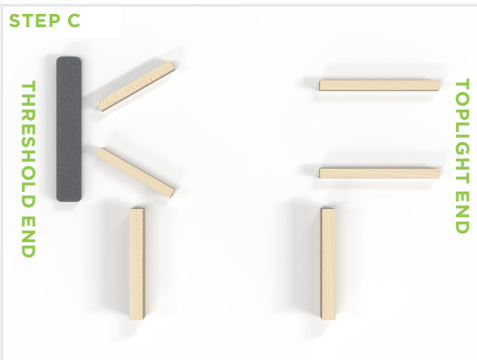


Screw (minimum size 4.3 x 40mm) fix 1 x VEKA steel frame strap to both vertical parts of the top light frame. They should be positioned approximately centrally along the length.

The fixing straps must be orientated so they can be fixed to the wall on the internal (non security attack) side of the doorset only.

Open the bag of fixings and locate the 3 no. 4.8mm x 90mm long, countersunk screws. Also locate the 4 no. 4.3 x 40mm screws.

STEP C



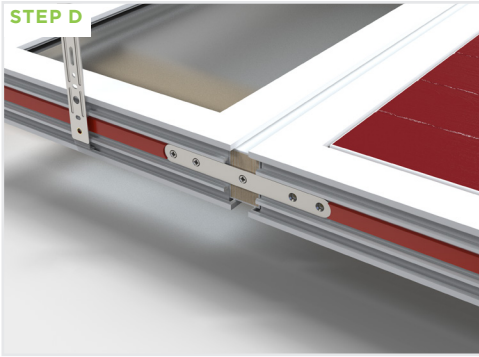
Top view of floor protected bearers in position.

Position protected floor bearers and carefully lay the doorset flat on top of the supporting bearers.

An open inward doorset should be positioned with the external face of the door facing toward the ground.

An open out doorset should be positioned so the external face of the door leaf is facing upwards.

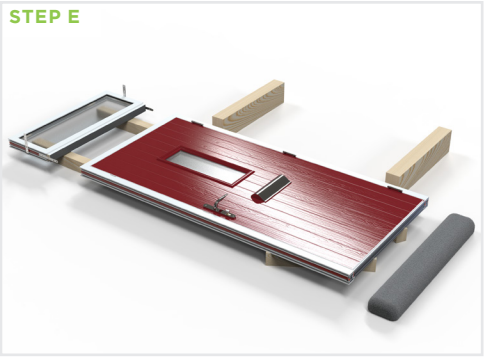
Use protective material in order to protect the frame and door when you lay it flat on the bearers. The bearers should be of a suitable height so that protruding ironmongery (such as the letterplate cowl) is not damaged when the doorset is laid on the bearers.

STEP D

Confirm the orientation of the toplight is correct and then position the toplight in line with the doorset frame.

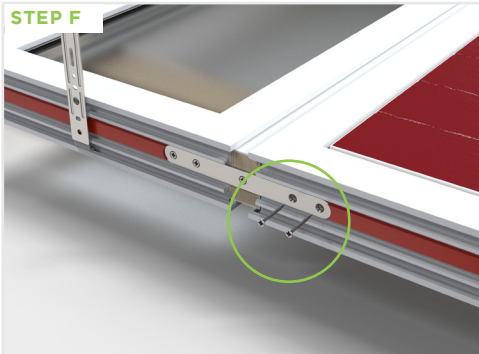
The VEKA fixing straps and the glazing bead should be orientated on the internal face of the doorset once it is fixed into position.

The toplight coupler should fit snugly into the grooved head of the doorset.

STEP E

Confirm the position and orientation of the toplight before installing any fixings.

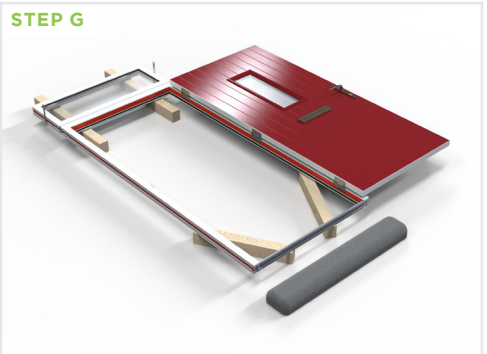
- Ensure that doorset jambs line up with the toplight jambs.
- Lay a straight edge across the face of the doorset and toplight frame to ensure they are flush and level.

STEP F

Use the 4 no. 4.3 x 40mm countersunk screws to apply into the side strap on the edges of the frame (2 per side).

Secure both left and right hand sides and confirm that the frame is still correctly lined up and surfaces are flush and level.

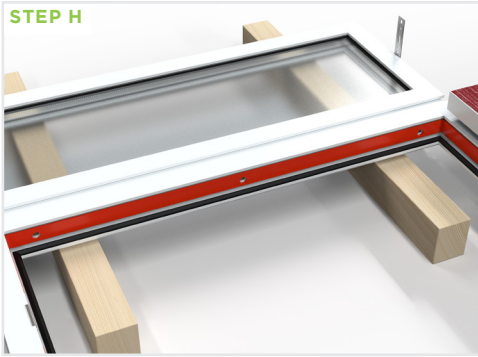
Apply a bead of external flexible sealant to the top and bottom seams where the coupler meet the toplight/doorset frame.

STEP G

Once the 4 no. 4.3 x 40mm screws are in place, carefully open the door and lay it gently on the protected bearers.

Take care not to damage to door leaf and ensure the bearers are of a suitable height so strain is not put on hinges or frame when doorleaf is opened.

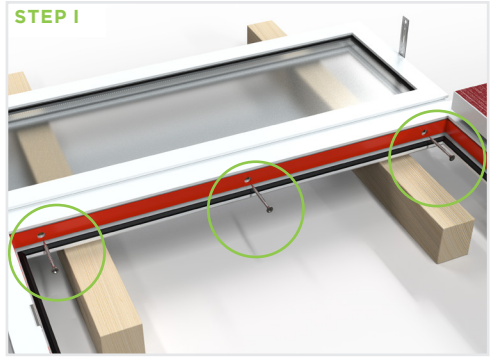
STEP H



Drill 3 no. x 4.5mm diameter pilot holes through the head of the doorset frame and up into the toplight frame. Pilot holes should be located between 150mm and 200mm from corner of frame and at the mid point (just off centre) so you have 3 in total.

Note: The pilot hole will penetrate the red intumescent seal in the frame rebate and should be countersunk to ensure the head of the fixing finishes below the surface.

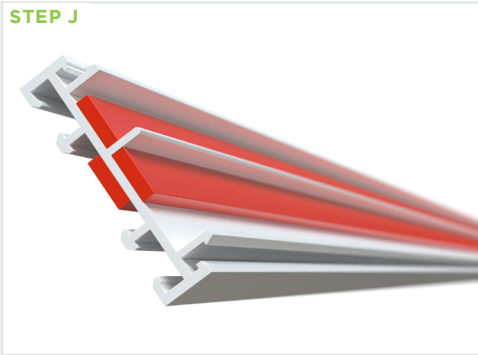
STEP I



Ensure the screwdriver is set to a low torque and slowly do up the 3 no. 4.8 x 90mm long countersunk screws. The head of the screw should finish slightly below the surface of the intumescent seal.

Carefully close and latch the door leaf.

STEP J

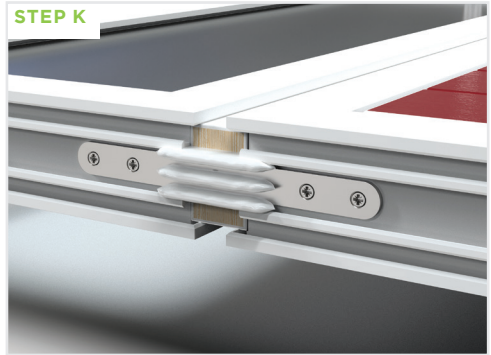


FRAME EXTENSIONS (ADD ONS)

Inspect the frame extensions (add-ons). Check that all 3 (15mm x 4mm) red intumescent seals fitted to the add-ons and are in place before fitting them to the frame.

If the intumescent seals are missing or damaged, do not proceed and contact Door-Stop for replacement.

STEP K

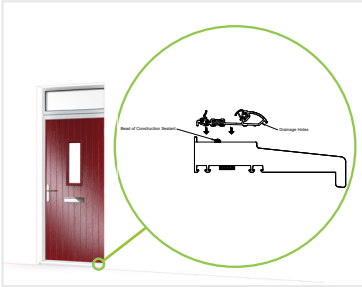


Apply 3 x beads of FSi Ltd Pyrocoustic Intumescent mastic on top of coupler strap before positioning the frame extension. Each bead must be a minimum of 120mm long and minimum of 8mm diameter.

Ensure the frame extension has been correctly clipped into the frame along the entire length. Secure the add on with minimum 4.3 diameter x 40mm length screws at maximum 400mm centres.

Take care not to smear this mastic when the doorset is being positioned in the aperture.

INSTALLATION PROCESS



STEP 1 - THRESHOLD PREPARATION

Ensure the aperture is free from dust or debris.

Move the frame into position taking care not to flex or twist the frame. Always support the doorset whilst it is being moved into position.

Position the frame at the correct depth in the aperture.

For external doorsets that are to be installed on top of a separate cill.

- Ensure the cill is in the correct location and is level.
- Apply a bead of external construction sealant between the cill and the aluminium threshold to prevent water ingress.
- Take care not to fill any drainage holes in the threshold with excessive sealant. Refer to diagram on page 9.
- Position the doorset threshold on top of the cill, ensuring that it is in the correct location.
- Additional securing screws (3 no. 4.5 x 25mm) may be used to fix the threshold to the cill.

STEP 2 - POSITIONING THE DOORSET IN THE APERTURE

Position the doorset frame to ensure it is plumb, level and square with a gap between the structural wall and the frame which is equal on both sides. The maximum gap allowed in accordance with certification is 25mm, however Door-Stop recommend a smaller gap is planned for in order to efficiently manage lineal gap sealing materials.

Insert wall packers between the wall and frame on the hinge jamb. The packers should be in line with the fixing points.

Certification requires minimum 4 fixing points at no more than 600mm centres. Additional fixing point locations, as detailed below, will not impact certification and will improve longevity of the installation if the doorset is subject to heavy use.



Approximately 50mm above and below the top, middle and bottom hinges (6 fixing points in total per hinge jamb).

Approximately 50mm above and below the top, middle and bottom keeps (6 fixing points in total per lock jamb).



STEP 3 - LOCK JAMB PACKERS

Push the frame hard against the hinge-side wall and position packers on the lock side, between the frame and the wall.

Ensure packers are the correct thickness to avoid bowing of the frame or impacting the gaps between the door leaf and the frame.

STEP 4 - OPENING THE DOOR LEAF TO INSTALL FIXINGS TO INSTALL FIXINGS

Before proceeding, ensure the doorset is square, plumb and level. Ensure the doorset is fully supported during this operation to prevent damage or injury.

Take care when carrying out this operation and ensure the frame does not fall whilst unsecured.

Remove the packers that are in place between the door leaf and the door frame.

Position the temporary floor packer on the opening side of the door leaf and open the door leaf to approximately 90-degrees ensuring to support the door leaf and frame carefully.

Rest the door leaf bottom edge gently on the temporary floor packer. Adjust the height of the floor packer to ensure the frame is plumb, level and square in the wall aperture.

At this stage, check the wall packers to ensure they have not moved. Ensure the doorset frame is still plumb, level and square and at the correct depth to the aperture of the door.



STEP 5 - WALL FIXINGS IN HINGE JAMB

Whilst supporting the frame in position, wall fixings should be positioned on the hinge side of the frame. Fixings must be a minimum size of 4.8mm and of a specification suitable to the specific wall construction type. Fixings should penetrate the wall at least 45mm.

The packers should be in line with the fixing points.

Certification requires minimum 4 fixing points at no more than 600mm centres. Additional fixing point locations, as detailed below, will not impact certification and will improve longevity of the installation if the doorset is subject to heavy use.

Approximately 50mm above and below the top, middle and bottom hinges (6 fixing points in total per hinge jamb).



The pilot hole for the fixing should be countersunk to ensure the head of the fixing is slightly below the surface of the intumescent seal. Care should be taken not to over-tighten fixings. It is acceptable for the wall fixing to be positioned through the intumescent seal.

STEP 6 - WALL FIXINGS IN LOCK JAMB

Before installing the lock side wall fixings, the following checks should be undertaken:

The doorset frame is still square, plumb and level and at the correct position within the aperture.

The packers are still in the correct position



and of the correct thickness as to not cause the frame to bow when the fixings are installed.

Fixings must be a minimum size of 4.8mm and of a specification suitable to the specific wall construction type. Fixing should penetrate the wall at least 45mm. The packers should be in line with the fixing points.

Certification requires minimum 4 fixing points at no more than 600mm centres. Additional fixing point locations, as detailed below, will not impact certification and will improve longevity of the installation if the doorset is subject to heavy use.

Approximately 50mm above and below the top, middle and bottom hinges (6 fixing points in total per hinge jamb).

The pilot hole for the fixing should be countersunk to ensure the head of the fixing is slightly below the surface of the intumescent seal. Care should be taken not to over-tighten fixings. It is acceptable for the wall fixing to be positioned through the intumescent seal.

STEP 7 – IN PROCESS CHECKS

Remove the temporary floor packer, close the door leaf and engage the latch. Ensure the gap between the door leaf and frame is consistent on each edge and does not exceed 6mm.

Ensure the frame is square, the gaps between door leaf and frame are equal, and the door frame is not twisted. The door should close tightly along the entire perimeter seal of the doorset frame.

Open and close the door to perform a check of smooth locking action. To ensure smooth locking action, suitable lock lubricating spray may be used. Do not use degreaser or water deterrent as this will damage the mechanism.

Small adjustment of the lock keeps (top, middle and bottom), may be undertaken by adjusting the flat head fixings on the individual keeps.



Checks should be made to ensure the lock hooks are engaging the keeps in a **central position** to ensure reliable operation of the lock throughout ongoing life service.



STEP 8 – FIXING THE TOPLIGHT

Confirm the orientation of the 2 x fixing straps to ensure they are positioned to be fixed to the wall on the internal side of the doorset (non attack face).

Check the packers are in the correct position and thickness to bridge the gap between the wall and the frame. The packer must be in line with the 2 x fixing straps and should be sunk into the wall construction so they are flush for fitting of optional architrave.

Apply wall fixings through the Toplight fixing straps and packers into the wall construction. Ensure the wall fixing is suitable for the wall construction type and penetrates the wall at a minimum of 40mm deep (excluding the perimeter gap between the back of the frame and the wall, and the packer thickness).

STEP 9 – FITTING AND ADJUSTING THE DOOR CLOSER

Fit the door closer using the specific fixings that are supplied in the door closer packaging. Ensure all fixings are used and they are correctly fitted into the pilot holes that are pre-drilled into the door leaf and the frame.

Ensure the door closer is straight and level.

CRITICAL IMPORTANCE:

The door closer should be adjusted to ensure:

- That the door leaf closes and latches from any angle.
- The variable speed of the closer is adjusted to ensure safe operation.
- The closer has been adjusted to ensure that the suitable opening and closing forces have been achieved.
- Failure to meet the adjustment requirements may mean that there is a failure to meet the certification and as such will invalidate the warranties.

After final adjustment of the closer, inspection and final adjustment of the top, middle and bottom keep should be



undertaken to ensure the lock hooks are engaging the keeps in a central position, to ensure reliable operation of the lock throughout its service life.

Open and close the door to perform a check of smooth locking action. To ensure smooth locking action, suitable lock lubricating spray may be used. Do not use degreaser or water deterrent as this will damage the mechanism.

FITTING THE CYLINDER AND HANDLES

Ensure that the holes in the door are free from dust and debris.

Position the cylinder in the doorleaf and use the supplied fixing screw to secure the cylinder. Take care to ensure that the screw does not become cross threaded, the screw is not overtightened and the head of the screws is flush with the surface of the lock.

Fit the door handles using the fixings provided in the packaging.

Ensure the fixing screws are positioned on the internal side of the door.

Check that the handles are flush to the face of the doorleaf, the screws are not overtightened or the screws head damaged.

LINEAL GAP SEALING BETWEEN THE WALL AND THE DOORSET FRAME

STEP 10 - LINEAL GAP SEALING

Doorsets must be installed strictly in accordance with the certificate, data sheet and the installation instructions to ensure that the correct materials are used and processes are adhered to. Failure to do so will invalidate the warranties.

The following information refers only to lineal gap sealing options A and B.

If an alternative CERTIFIRE approved lineal gap sealing system is selected, follow the specific instructions provided in the relevant certificate (see page 7 for more information).

Door-Stop hold primary test evidence (Fire and Smoke leakage) for the following combinations, tested with the Door-Stop Fire doorset.

Option A

Rockwool RWA45 (backfilling material), capped on both faces with (minimum) 10mm deep FSi Ltd Pyrocoustic Intumescent Sealant.

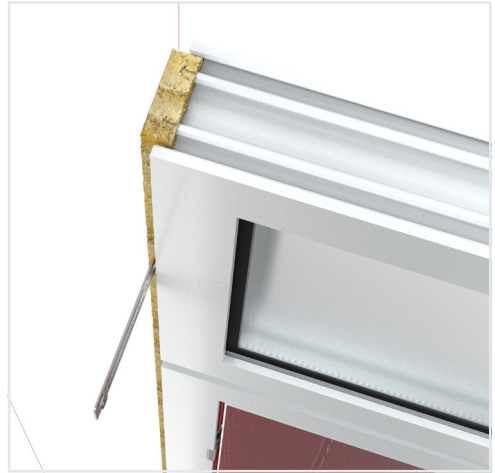
STEP 11 - BACKFILLING MATERIAL AND CAPPING WITH INTUMESCENT MASTIC

Packers may be left exposed, but it is recommended to cut them back slightly below the surface of the frame.

Ensure the gaps between the frame and the wall are free from dust or debris.

Tightly pack the gap around the entire perimeter with the chosen backfilling material. It should be positioned to allow a minimum 10mm deep application of intumescent capping on both sides.

Inspect the entire perimeter of the gap from both sides to confirm that backfilling material is correctly in location, and there are no gaps or loose material.



Option B

Unifrax Insulfrax LTX blanket (backfilling material), capped on both faces with (minimum) 10mm deep Firewise Intumescent and Acoustic Sealant.



Apply the selected capping intumescent mastic in the (minimum) 10mm deep void on both sides of the doorset. Cap over the void of the any exposed packers.

Inspect the entire perimeter to ensure there are no gaps and excess intumescent mastic has been removed.

FINAL CHECKS

CHECK THE LABEL

Ensure that the fire door label is in place and is not damaged.

CHECKING THE OPERATION OF THE DOORSET

Once the doorset has been fully installed, it is critically important to perform several checks to ensure the product is working correctly.

Before optional architraves are fitted, inspection should take place to ensure the gap between the frame and the wall is correctly filled with suitable backfilling lineal gap sealing materials capped with intumescent mastic on both sides. There should be no gaps around the perimeter.

LOCK ENGAGEMENT

Perform repeated opening and closing of the door to ensure that the latch fully engages and the lock (for multipoint locks) engages smoothly when the door is locked. White lithium grease may be used to lubricate the lock parts. Degreaser or water deterrent should not be used as this will damage the lock mechanism.

CYLINDER AND KEY OPERATION

The key and cylinder should be checked for smooth operation. Lubricate cylinder with silicone based lubricant. Degreaser or water deterrent should not be used as this will damage the mechanism.

ADJUSTMENT TO THE KEEPS

Adjustment can be made on the keeps by turning the adjustment screws. Ensure that the top, middle and bottom lock hooks engage smoothly with the keeps.

Inspect and make final adjustment of the top, middle and bottom keep to ensure the lock hooks are engaging the keeps in a central position. This will help to ensure reliable operation of the lock throughout life service.

DOOR CLOSER ADJUSTMENT

The door closer should be adjusted to ensure:

- That the door leaf closes over the latch from any angle.
- The power setting of the door closer is adjusted to ensure safe operation.
- The closer has been adjusted to ensure that the suitable opening and closing forces have been achieved.

GAPS

The gaps between the door leaf and the frame should be equal along the entire length and must meet the gaps stated in the certificate.

FITTING OF FIRE DOOR KEEP LOCKED SIGN

On locked service cupboard doors, fit the 'Fire Door Keep Locked' Sign on the face of doorleaf at correct height.

FITTING OF DECORATIVE ARCHITRAVES

Fitting of architraves is optional. Refer to the certificate for more information.

FITTING ANCILLARY ITEMS

Refer to the certificate and data sheet for more information.

Coat hooks, door knockers and other surface mounted ironmongery may be fitted on the basis that they conform to the limitations detailed in the certificate and data sheet.

These limitations include:

- Items are wholly surface mounted.
- Fixings type (size and material).
- Items are not bolted through the full thickness of the door.
- Items are not directly above, or closer than 100mm to any non insulated glazing.

FITTING PROTECTION PLATES AND SIGNAGE

Refer to the certificate and data sheet for more information.

Surface mounted plates are acceptable on the basis that they conform to the limitations detailed in the certificate and data sheet.

These limitations include:

- Material type
- Thickness of plate/s
- Size of plate (height, width and surface area)
- Location of the plate/s on the doorleaf
- Fixing type (size and material)

FINAL CHECKS FOR EXTERNAL FIRE DOORSETS

WEATHERSEALING

Ensure that the product is suitably sealed around the perimeter with a flexible, external construction sealant, in order to protect from external weather and environmental conditions.

THRESHOLD DRAINAGE

Inspect the threshold and ensure that it is free from dust and debris, and that drainage holes are not blocked.