Bradbury Group

Bradbury Group

Install Instructions M2M 2 3 4 FD

CONTENT

SURVEYING

Accurate surveying is important for correct installation. Please take measurements from the top, middle and bottom of the width and use the smallest measurement. Repeat for the height.

If providing Bradbury Group with the structural opening measurements, we will reduce the overall manufactured frame size by 10mm in the width and 5mm in the height, this is to allow tolerance for the installation.

It is the client's responsibility to ensure the opening is fire and security rated, square, clean and accessible, prior to installation.

EQUIPMENT & TOOLS REQUIRED

- Masonry drill bits and standard drill bits
- Pencil or marker pen
- Spirit level
- Measuring tape
- Fixings to comply with the minimum fixing standards
- Tools to install fixings, i.e. cordless/corded drills
- Mastic or similar filler

PRE-INSTALLATION CHECKS

- Open supplied package and check contents against delivery note
- Ensure the area is clear of all obstructions
- Make sure the structural opening is solid and can achieve the fire and security rating of the door to be installed
- Check that the door frame supplied will fit into the opening
- Check that it is safe to drill around the opening

SECURITY RATED DOORS

When installing security rated doors, the client must be fully satisfied that the structure around the aperture is more secure or equivalent to the door set rating.

M2M[2], M2M[3] and M2M[4] door sets are LPCB certified to LPS 1175 SR2, SR3 and SR4, respectively. To ensure that the installation complies with the accreditation, follow one of the minimum fixing standards below.

The minimum fixing standards (below) assume installation direct into substrate not via intermediate substrate, such as plasterboard. The perimeter of the door should be made good, using mastic or similar.

STORAGE REQUIREMENTS

Prior to installation of the door sets, they should be stored in the packaging as shipped from Bradbury in a dry environment. Doors should not be stacked on top of each other in storage.

PRODUCT LABELLING

Internal Fire Doors

Fire rated products which carry *Efectis Certified* certification will be fitted with a label containing the information in the format as per the example below:

Product Type	M2M2
Serial Number	XXXXXXXX-XX-XX
Name of Manufacturer	Bradbury Group
Production Site	Scunthorpe, UK
Certification Number	EFR-2506-450
Classification	E120
Year of Production	2025

The Efectis logo indicates the fire resistance of the product through the colour of the logo and the number of minutes stated as per the standard below.

MANUFACTURING & CERTIFICATION

All doorsets are produced at: Bradbury Group, 6 Atkinsons Way, Scunthorpe, DN15 8QJ, UK

Certified doorsets are delivered complete with all hardware fitted.

Doorsets which are supplied with *Efectis Certified* certification will be clearly labelled as such, as per the example.

Efectis Certified certification relates to certificate EFR-2506-0450.

Doorsets which carry a CE marking will be labelled in accordance with the standard method for CE marking.

FIXING OPTIONS SECURITY & FIRE RATED DOORS

Permitted wall constructions for fire rated doors

Fire-rated doors can only be installed into the type of wall construction that they are certified for. Bradbury fire-rated M2M2/3/4 doorsets must only be installed into the appropriate type of wall as follows:

- Reinforced concrete walls with a density of at least 2200kg/m³ and a thickness of at least 110mm.
- Blockwork, masonry or homogenous concrete wall with an overall density of at least 2200 kg/m³ and a thickness of at least 110mm.

Door Type	Min Qty	Min no. of fixings per vertical edge	Size, Grade & Min Bolt Diameter	Min Length
M2M2 FD (SR2)	MAX Centers 450mm		M10 Grade 12.9	150mm
	8	4		
M2M3 FD (SR3)	MAX Centers 450mm		M10 Grade 12.9	150mm
	8	4		
M2M4 FD (SR4)	MAX Centers 450mm		M10 Grade 12.9	150mm
	16	8		

Fitting into a steel supporting construction is not permitted. In such cases where a wall is formed of steel construction, the person responsible for the building should consult BS EN 1363-1:2020.

EXTERNAL FIRE RATED DOORS

Additional requirements for fire rated doors:

- Fixings to the main structural surround should comprise of steel screws of sufficient length to penetrate the main structure by a minimum of 150mm in accordance with Fire Door fixings data shown on page 3. Plastic plugs must be fully concealed within the structural opening substrate.
- All fixings and hardware must be steel (no plastic).
- Steel screws are to be inserted at a maximum of 450mm centers.
- Any packers or shims used during installation must be made from steel.
- Maximum gap between door frame and structural opening is 5.75mm Maximum.
- Gaps between the structural opening and the frame should be sealed with FSI PYROLASTIC Silicone sealant installed in accordance with manufacturer's instructions.
  NOTE. Use of other manufacturers Sealants will void Fire Certification.

INTERNAL FIRE RATED DOORS

Additional requirements for fire rated doors:

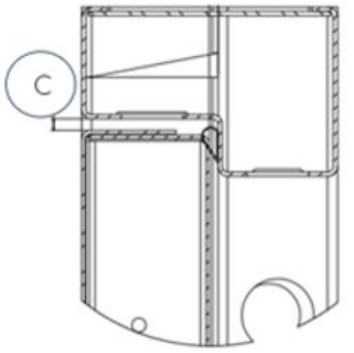
- Fixings to the main structural surround should comprise of steel screws of sufficient length to penetrate the main structure by a minimum of 150mm in accordance with Fire Door fixings data shown on page 3. Plastic plugs must be fully concealed within the structural opening substrate.
- All fixings and hardware must be steel (no plastic).
- Steel screws are to be inserted at a maximum of 450mm centers.
- Any packers or shims used during installation must be made from steel.
- Maximum gap between door frame and structural opening is 5.75mm.
- Gaps between the structural opening and the frame should be sealed with FSI PYROLASTIC Silicone sealant installed in accordance with manufacturer's instructions
  NOTE. Use of other manufacturers Sealants will void Fire Certification.

INSTALLATION GAPS & ENGAGEMENT FIRE RATED DOORS

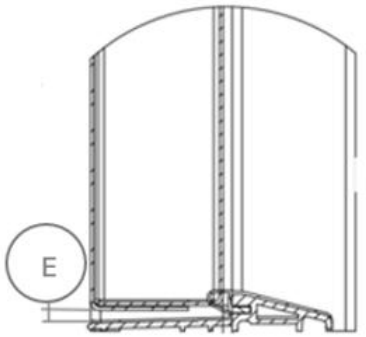
The Min & Max installation gaps allowed around M2M [2] [3] [4] FD doors are as below:

A) Hinge Post to Door Side Edge 6mm Max
B) Lock Post to Door Side Edge 2.5mm Max
C) Top Rail to Door Top Edge 3mm Max
D) Active Leaf to Passive Leaf 6mm Max
E) Door Bottom Edge to Threshold 4mm Max

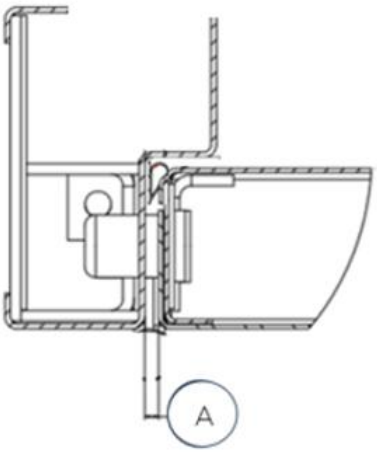
- Minimum Latch Engagement Single Door = 25.5mm
- Minimum Latch Engagement Double Door = 10mm



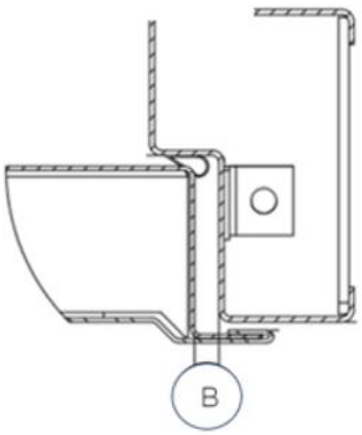
Vertical Section view through



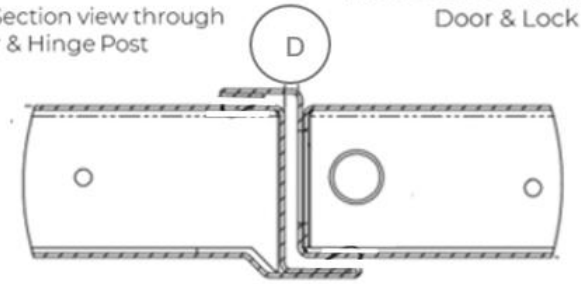
Vertical Section view through Door & Threshold



Horizontal Section view through Door & Hinge Post



Horizontal Section view through Door & Lock Post



Horizontal Section view through Active & Passive Door

SILICONE TEARDROP FIRE SEAL

BEFORE INSTALLATION

Surface of frame to be thoroughly cleaned where the gasketing is to be applied (see drawing). For cleaning the surfaces only use a clean cloth and a solvent that is compatible with the materials, such as Isopropanol (Isopropyl alcohol or IPA), Ethanol or Methanol (Methylated or surgical spirits). Make sure to check for any impediments (dust, dirt, oil, grease, etc...) or loose paint and remove them from the surface area. Surface area must be completely dry before the installation process begins.

HOW TO INSTALL

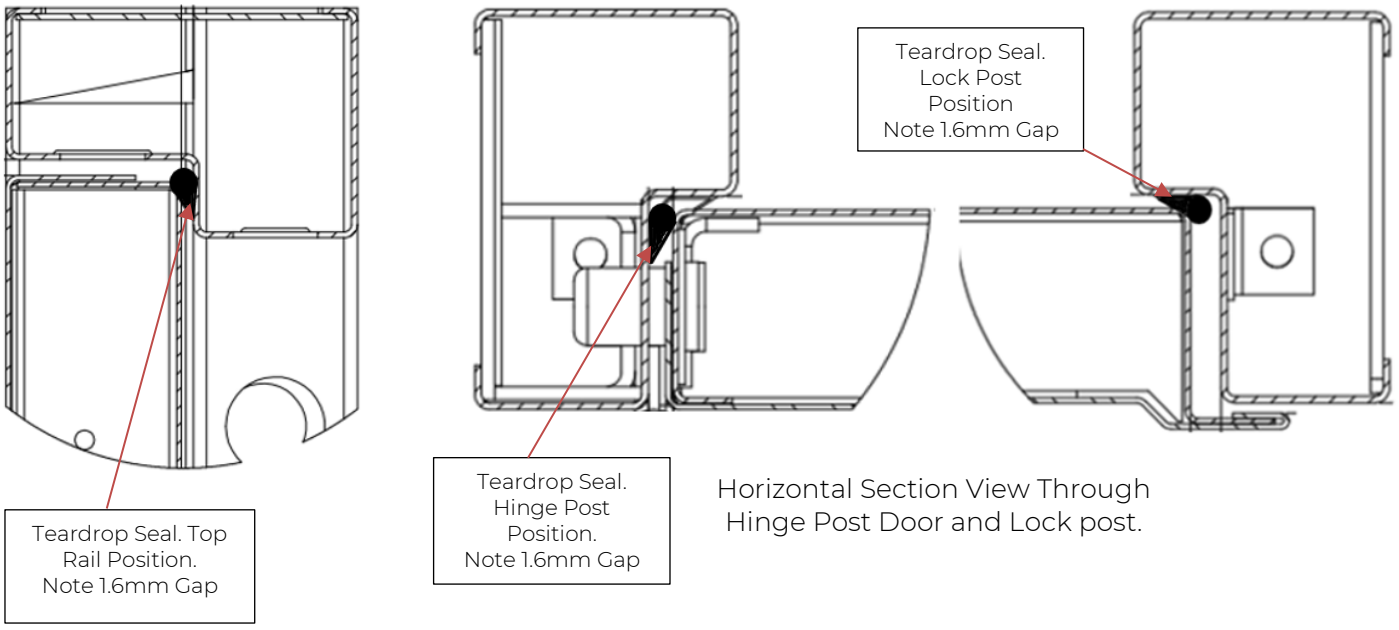
1. The first piece of seal applied should be the Top Rail seal and should be the entire length of the Top Rail. Measure and cut the seal to size and locate properly (see drawing for location on top rail). Leave approximately 1.6mm between seal and door frame for clearance when compressed.

2. Remove the paper backing from the self-adhesive strip, 300 to 600mm at a time, and press firmly into place as you align and install the seal on the head. IMPORTANT - DO NOT STRETCH THE SEAL DURING INSTALLATION. ENSURE THE SEAL IS PARALLEL TO THE EDGE.

3. The Lock Post seal should be installed next. (See drawing for location on lock post) following procedures as outlined in steps 1 and 2.

4. Install the hinge post seal last. (See drawing for location on lock post) following procedures as outlined in steps 1 and 2.

5. Full adhesive set is only reached after 24 hours at normal temperatures.



Horizontal Section View Through Hinge Post Door and Lock post.

NOTE: If a teardrop seal has been specified on the astragal of a double doorset, it is to be fitted on the passive anti-pry strip with the bulb into the corner.

SINGLE BATWING FIRE SEAL

BEFORE INSTALLATION

Surface of frame to be thoroughly cleaned where the gasketing is to be applied (see drawing). For cleaning the surfaces only use a clean cloth and a solvent that is compatible with the materials, such as Isopropanol (Isopropyl alcohol or IPA), Ethanol or Methanol (Methylated or surgical spirits). Make sure to check for any impediments (dust, dirt, oil, grease, etc...) or loose paint and remove them from the surface area. Surface area must be completely dry before the installation process begins.

HOW TO INSTALL

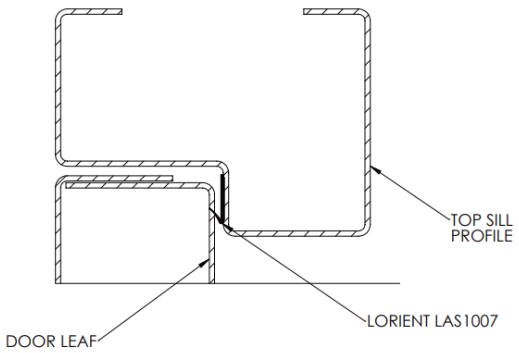
1. The first piece of seal applied should be the Top Rail seal and should be the entire length of the Top Rail. Measure and cut the seal to size and locate properly (see drawing for location on top rail). NOTE: The seal will need to have a 45° mitre at each end.

2. Remove the film backing from the self-adhesive strip, 300 to 600mm, at a time and press firmly into place as you align and install the seal on the head. ENSURE THE SEAL IS PARALLEL TO THE EDGE.

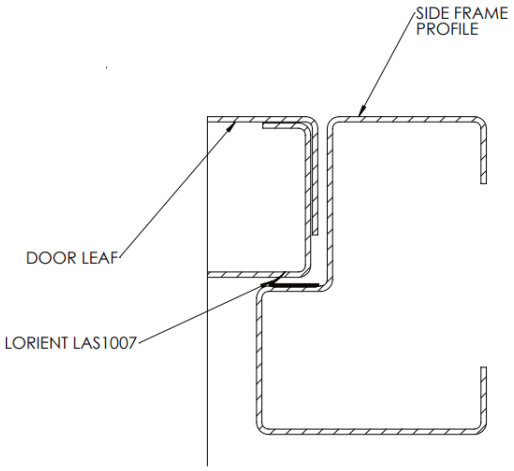
3. The Lock Post seal should be installed next. (See drawing for location on lock post) following procedures as outlined in steps 1 and 2, except only mitred at the top to match the seal on the Top Rail.

4. Install the hinge post seal last. (See drawing for location on lock post) following procedures as outlined in steps 1 and 2, except only mitred at the top to match the seal on the Top Rail.

5. Full adhesive set is only reached after 24 hours at normal temperatures.



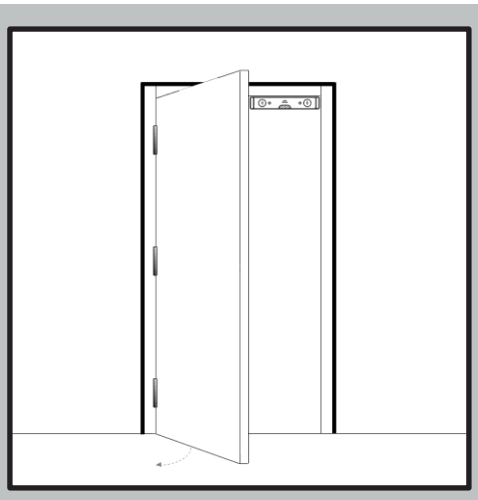
TOP SILL SEAL POSITION



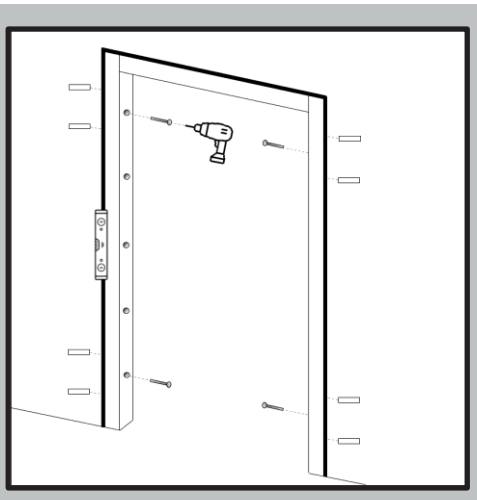
HINGE SIDE SEAL POSITION

SINGLE DOORS WITHOUT ADJUSTERS

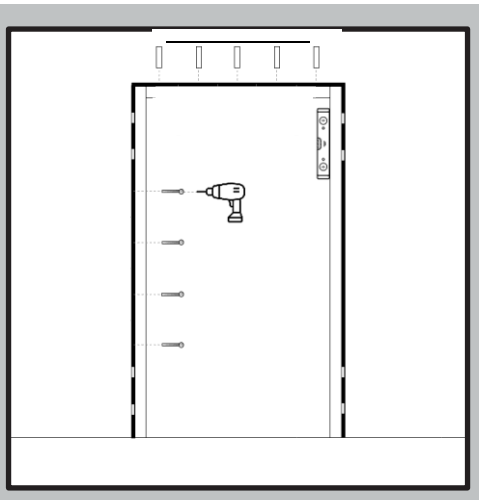
1. Insert the door and frame into the opening and open the door to 90°.
2. Place the spirit level parallel to the frame. If the top frame rail is not level, use packers to raise the lowest side of the frame to level.
3. Once the frame is aligned, fill the gaps between the frame and the structure with packers to centralise the door and even out the gaps around the frame.
4. Level up the front face of the hinge post, ensuring the top of the frame does not lean in or out of the opening.
5. Drill and insert fixings into top and bottom fixing holes, and place packers close to the fixings (As shown in image 5-6). Do not tighten the fixings.
6. Position frame centrally in opening, with hinge post vertical. Double check the door alignment with a spirit level, then tighten fixings.
7. Drill the remaining fixing holes for the hinge post and insert the fixings. Do not tighten the fixings.
8. Place packers between the hinge post and the wall, adjacent to fixings, then tighten fixings.
9. Use the same method to secure the top rail in position.
10. Close the door leaf to test it in the frame. If the leading edge is too high or too low, loosen required fixings and add or remover packers to true up the door.
11. Once adjustments are made, drill and insert fixings into lock post. Do not tighten the fixings.
12. Insert packers between the lock post and wall fixing, then tighten fixings. Do not over pack between the post and the wall.
13. Fit the bottom threshold between the frame. Level up with shims so it is parallel with the bottom of the door leaf, then drill and fit to floor. If Threshold is supplied integral within the frame use packers where required between floor and threshold then drill and secure to floor.
14. Apply silicone sealant around the door frame and bottom sill (inside and outside), as required. Only use the approved type of silicone sealant stipulated in these fitting instructions.
15. Plug the fixing holes in the frame with bungs.



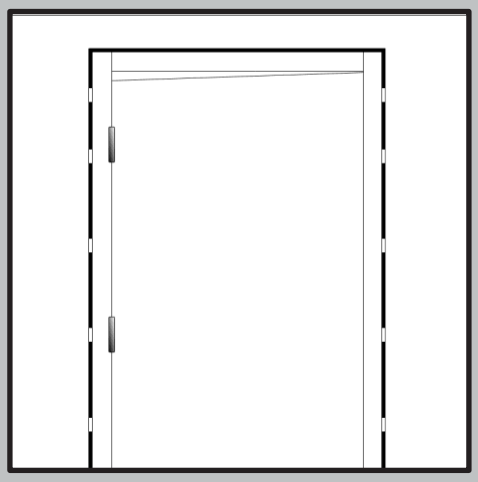
Steps 1-4



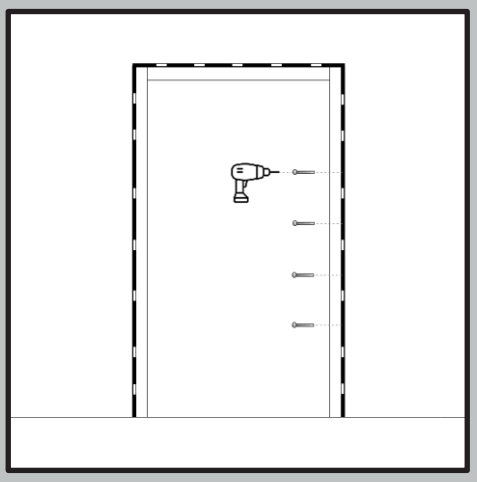
Steps 5-6



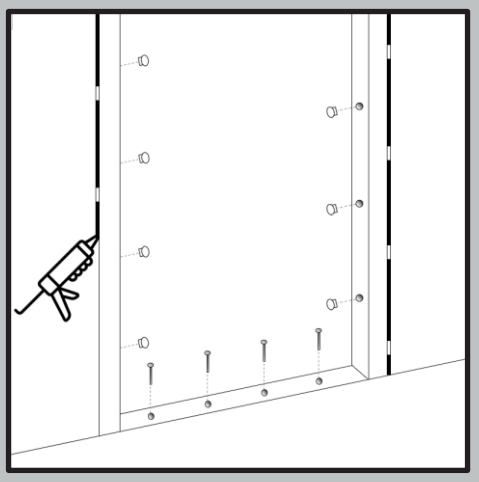
Steps 7-9



Step 10



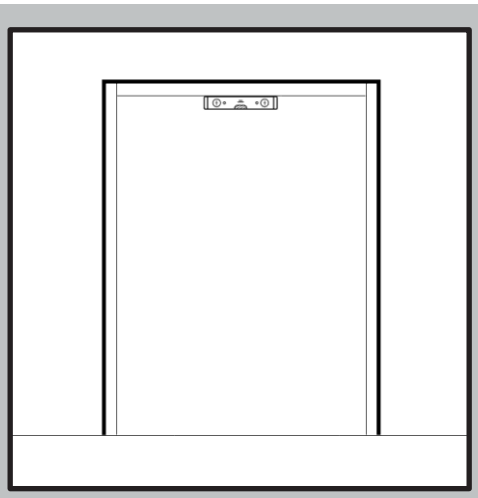
Steps 11-12



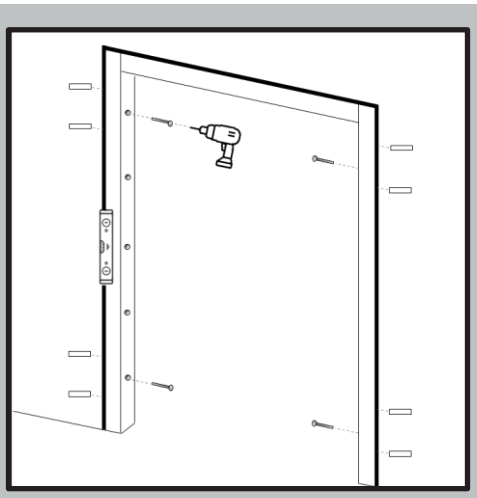
Steps 13-15

DOUBLE DOORS WITHOUT ADJUSTERS

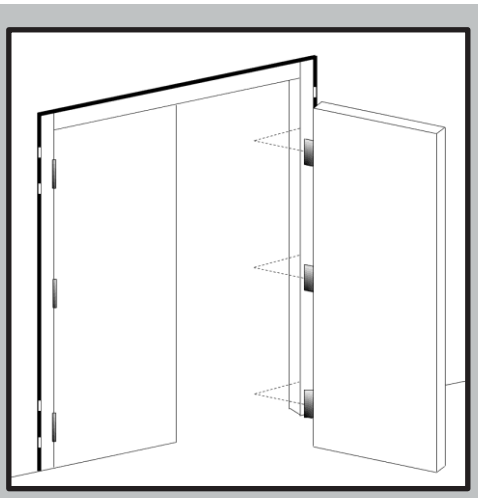
1. Assemble the door frame, then insert the frame into the opening.
2. Place the spirit level parallel to the frame. If the head of the frame is not level, use packers to raise the lowest side of the frame to level.
3. Once the frame is aligned, fill the gaps between the frame and the structure with packers to centralise the door and even out the gaps around the frame.
4. Level up the front face of the first hinge post, so the frame does not lean in or out of the opening.
5. Drill and insert fixings into top and bottom fixing holes. (As shown in image 5–6) Note if installing an SR2, SR3 OR SR4 rated door, add additional fixings to the middle of each post. Place packers close to the fixings. Do not tighten the fixings.
6. Position frame centrally in opening, with the first hinge post vertical. Double check the door alignment with a spirit level, then tighten fixings.
7. Hang the doors on the frame, then close the doors to check that they shut correctly and are hanging level and test the door hardware.
8. If the doors bind or the leading edge is too high or too low. loosen required fixings and add or remover packers to true up the door and re-tighten the fixings.
9. Once the doors are positioned and working satisfactorily, drill the rest of the holes on the hinge posts and insert fixings. Do not tighten the fixings.
10. Place packers between the frame and the wall, adjacent to each of the fixings, then tighten fixings. Do not over pack between the frame and the wall.
11. Use the same method to secure the top rail in position.
12. Fit the bottom threshold between the frame. Level up with shims so it is parallel with the bottom of the door leaf, then drill and fit to floor.
13. Apply silicone sealant around the door frame and bottom sill (inside and outside), as required. Only use the approved type of silicone sealant stipulated in these fitting instructions.
14. Plug the fixing holes in the frame with bungs.



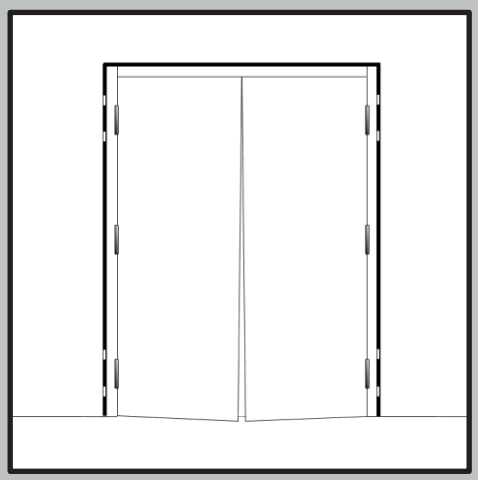
Steps 1-4



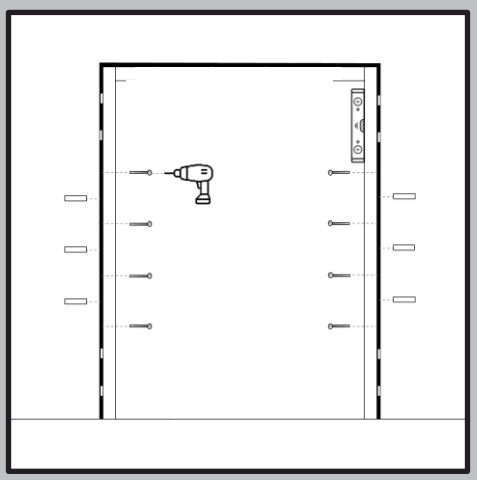
Steps 5-6



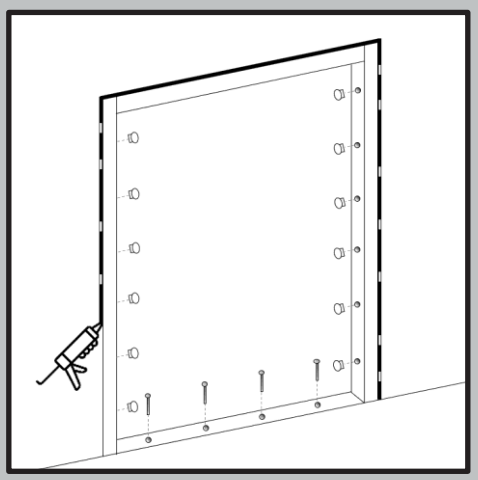
Step 7



Step 8



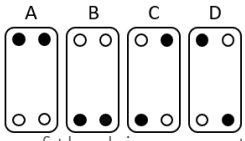
Steps 9-11



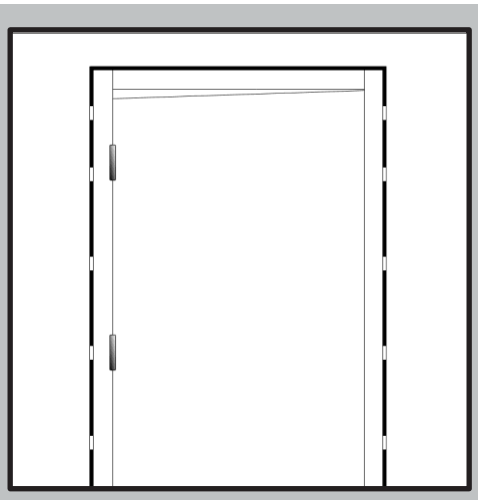
Steps 12-14

SINGLE DOORS WITH ADJUSTERS

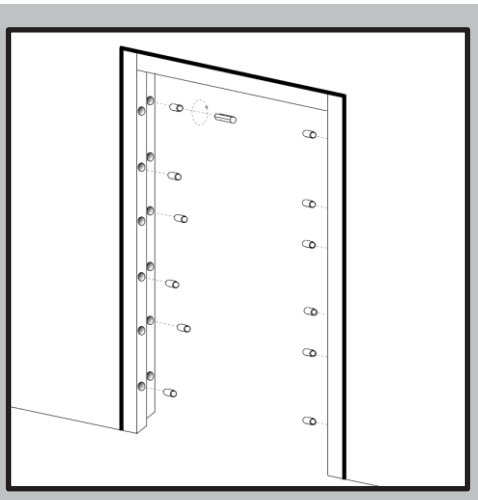
1. Insert the door and frame into the opening, and open the door to 90°, using packers underneath the door leaf to level the frame in the opening.
2. Place the spirit level parallel to the frame. If the head of the frame is not level, use packers to raise the lowest side of the frame to level.
3. Once the frame is aligned, screw the adjusters through the tapped holes using the hex tool supplied, ensuring the door is central in the opening. Adjusters must be arranged using one or more of the following patterns:



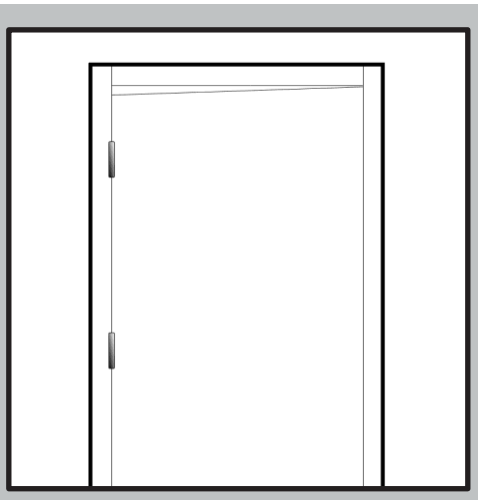
4. Level up the front face of the hinge post, ensuring the top of the frame does not lean in or out of the opening.
5. Using the hex tool supplied, fasten the top adjusters, then the bottom adjusters, and finally the middle adjusters. Care must be taken not to distort the frame by over-tightening the adjusters.
6. Close the door to test it in the frame. If the leading edge is too high or too low, loosen or tighten adjuster as required to true up the door.
7. Once adjustments are made, drill and insert fixings down both hinge and lock posts. Do not tighten the fixings.
8. Double check the door alignment with a spirit level, then tighten fixings.
9. Fit the bottom threshold between the frame. Level up with shims so it is parallel with the bottom of the door leaf, then drill and fit to floor. If Threshold is supplied integral within the frame use packers where required between floor and threshold then drill and secure to floor.
10. Apply silicone sealant around the door frame and bottom sill (inside and outside), as required. Only use the approved type of silicone sealant stipulated in these fitting instructions.
11. Plug the fixing holes in the frame with bungs.
12. Re-check operation of the door set.



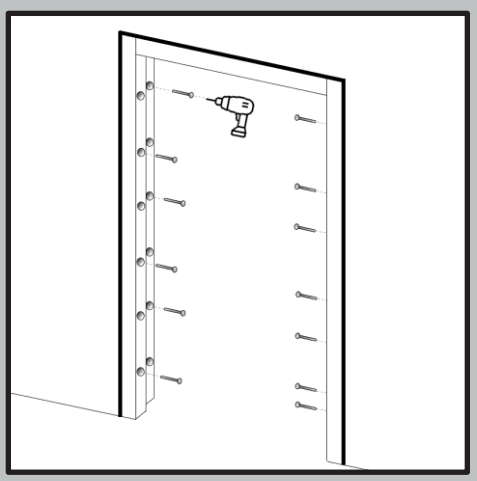
Steps 1-2



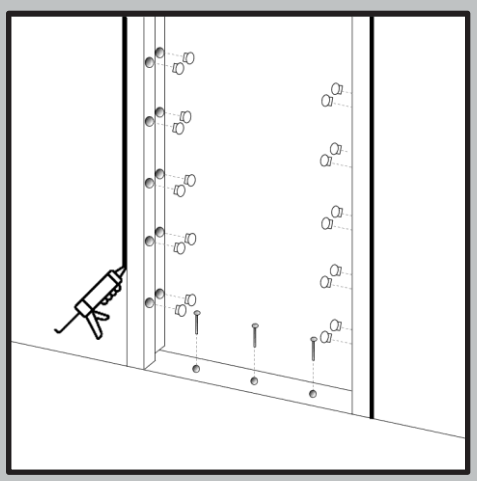
Steps 3-5



Step 6



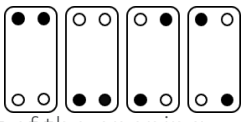
Steps 7-8



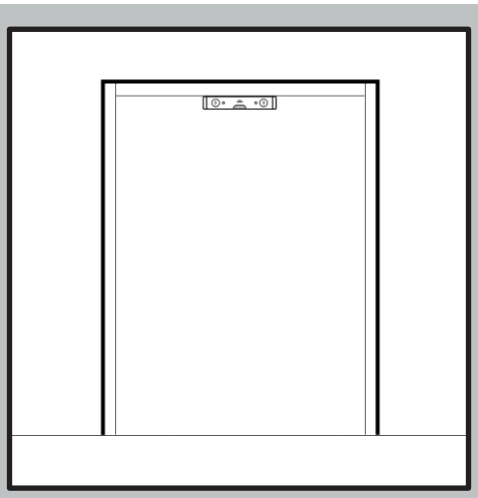
Steps 9-12

DOUBLE DOORS WITH ADJUSTERS

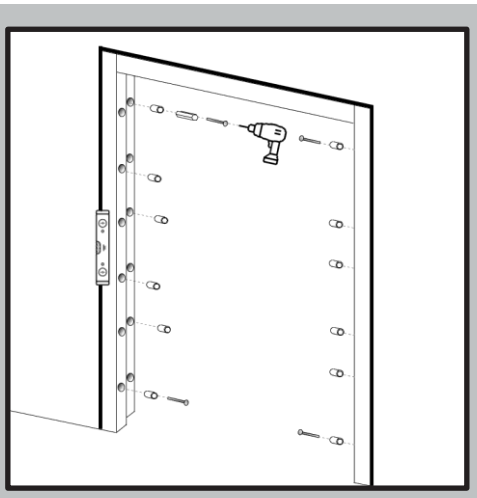
1. Assemble the door frame then insert the frame into the opening.
2. Place the spirit level parallel to the frame. If the head of the frame is not level, use packers to raise the lowest side of the frame to level.
3. Screw the adjusters through the tapped holes using the hex tool supplied, ensuring the door is central in the opening. Adjusters must be arranged using one or more of the following patterns:



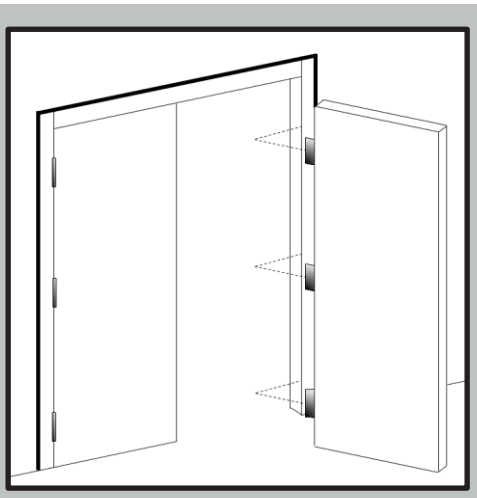
4. Level up the front face of the first hinge post, ensuring the frame does not lean in or out of the opening.
5. Drill and insert fixings into top and bottom fixing holes. (As shown in image 5–6) Note if installing an SR2, SR3 OR SR4 rated door, add additional fixings to the middle of each post. Place packers close to the fixings. Do not tighten the fixings.
6. Position frame centrally in opening, with the first hinge post vertical. Double check the door alignment with a spirit level, then tighten fixings.
7. Hang the doors on the frame, then close the doors to check that they shut correctly and are hanging level and test the door hardware.
8. Close the door to test it in the frame. If the leading edge is too high or too low, loosen or tighten adjuster as required to true up the door.
9. Once adjustments are made, drill and insert fixings on all posts. Do not tighten the fixings.
10. Double check the door alignment with a spirit level, then tighten fixings.
11. Fit the bottom threshold between the frame. Level up with shims so it is parallel with the bottom of the door leaf, then drill and fit to floor.
12. Apply silicone sealant around the door frame and bottom sill (inside and outside), as required. Only use the approved type of silicone sealant stipulated in these fitting instructions.
13. Plug the fixing holes in the frame with bungs.



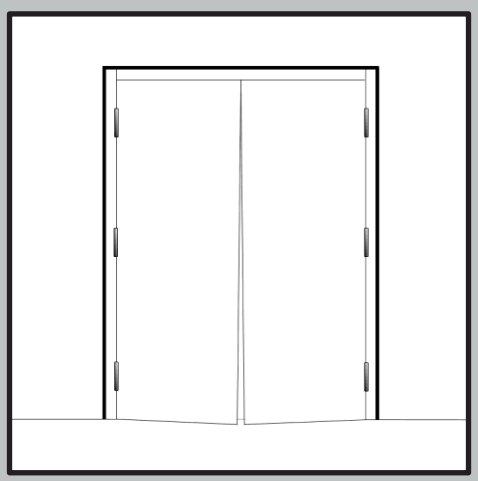
Steps 1-2



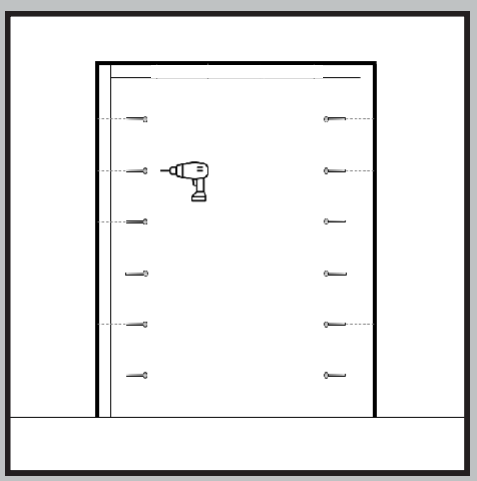
Steps 3-5



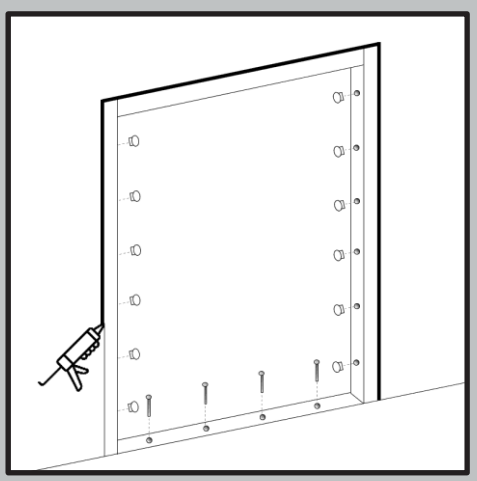
Step 6 -7



Step 7 - 8



Steps 9-10



Steps 11-13

SILICONE GAP SEALING GUIDE

Gaps between the structural opening and the frame should be sealed with FSI PYROLASTIC Silicone sealant installed in accordance with manufacturer's instructions.

IMPORTANT. Incorrect installation and use of other manufacturers Sealants will void Fire Certification.

INSPECTION & MAINTENANCE

Visual and operational checks must to be carried out on a weekly basis including items below If applied.

- Check correct function of Handle and latch system.
- Check the correct function of Panic bar.
- Check the correct function of the door locking system.
- Check the correct function of hinges.
- Check the correct function of the door closer.
- Check door seals are present and correctly fixed to the door frame.
- Check the condition of door seals. Ensure there is no damage.
  Damaged or missing door seals can compromise fire and integrity.
- Check the door opens and closes without interference.
- Visually check for sign of mechanical damage to the door and frame.
  Damage to the door or frame can affect its fire and security integrity.
- Check the condition of the silicone seal between frame and building substrate.
  Damage to silicone GAP sealant can affect the fire integrity of the door installation.

  Damaged or inoperable parts must be replaced or repaired in accordance with the manufacturer's instructions.

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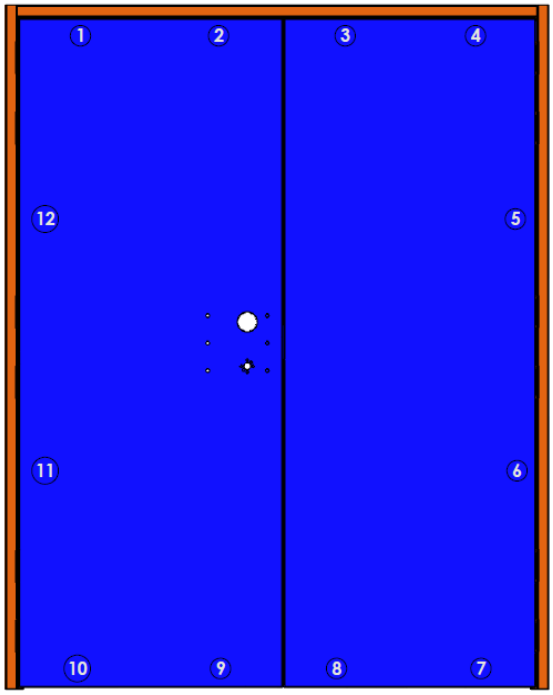
INSTALLATION DIMENSIONAL RECORD - DOUBLE

FORM ID	IMSF259
ISSUE DATE	04/06/2025
REVISION	1
PAGES	1 of 1

CUSTOMER:		INSTALLER NAME:	
PRODUCT RANGE:		INSTALL DATE:	
ORDER NUMBER:		SIGNATURE:	



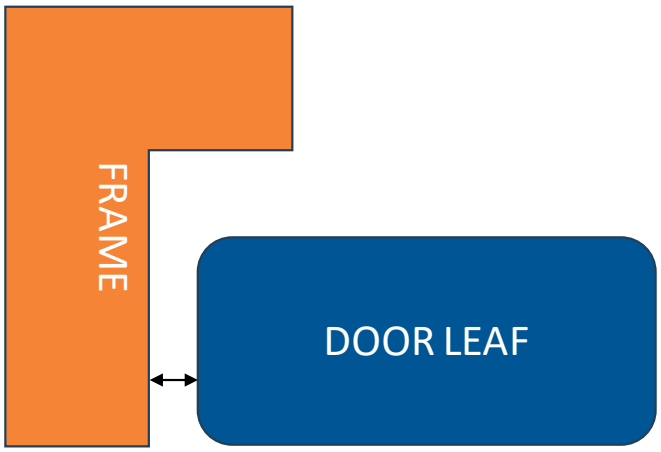
N.B. Images for reference purposes only. Actual Product may differ dependant on

DOOR TO FRAME GAP (SECTION VIEW "A")			
Position	Description	Target	Actual
1	Top Rail to Door Top Edge		
2	Top Rail to Door Top Edge		
3	Lock Post to Door Side Edge		
4	Lock Post to Door Side Edge		
5	Lock Post to Door Side Edge		
6	Door Bottom Edge to Threshold		
7	Door Bottom Edge to Threshold		
8	Hinge Post to Door Side Edge		
9	Hinge Post to Door Side Edge		

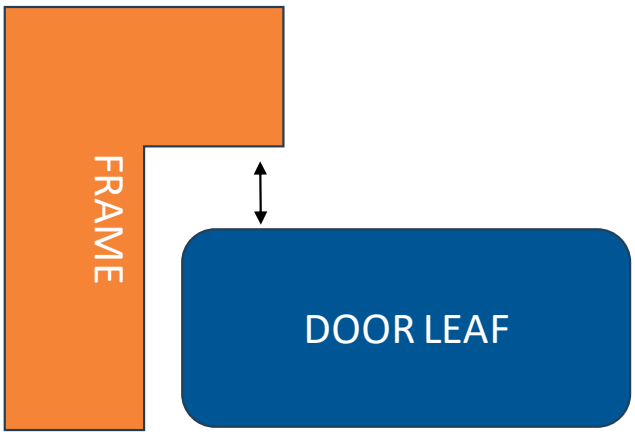
DOOR TO STOP FACE GAP (SECTION VIEW "B")			
1	Door to Stop Face		
2	Door to Stop Face		
3	Door to Stop Face		
4	Door to Stop Face		
5	Door to Stop Face		
6	Door to Threshold Face		
7	Door to Threshold Face		
8	Door to Stop Face		
9	Door to Stop Face		

DOOR LEAF TO LEAF GAP (SECTION VIEW "C")			
A	LEAF TO LEAF GAP AT TOP		
B	LEAF TO LEAF GAP AT BOTTOM		

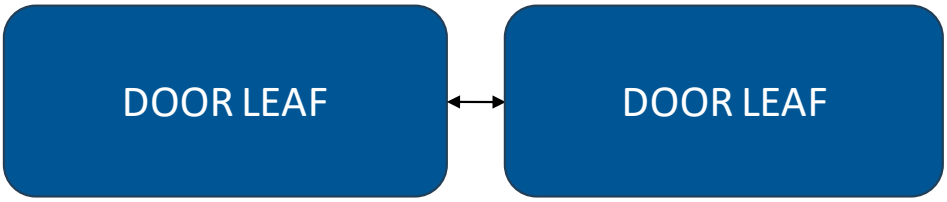
SECTION VIEW "A"



SECTION VIEW "B"

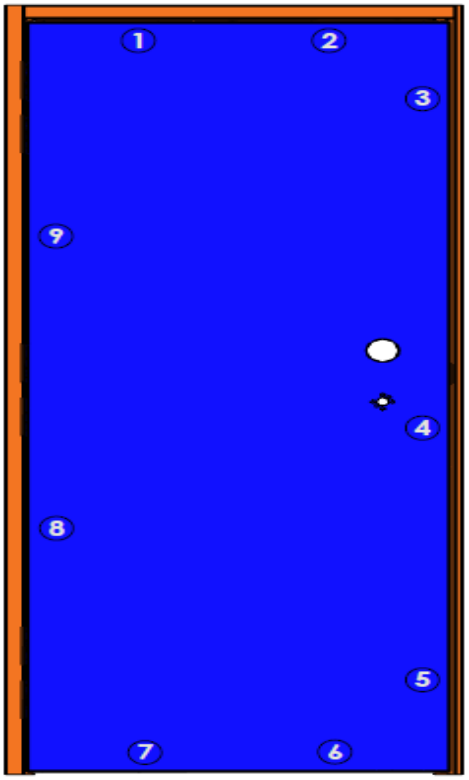


SECTION VIEW "C"



Bradbury Group	INSTALLATION DIMENSIONAL RECORD - SINGLE	FORM ID	IMSF258
		ISSUE DATE	04/06/2025
		REVISION	1
		PAGES	1 of 1

CUSTOMER:		INSTALLER NAME:	
PRODUCT RANGE:		INSTALL DATE:	
ORDER NUMBER:		SIGNATURE:	

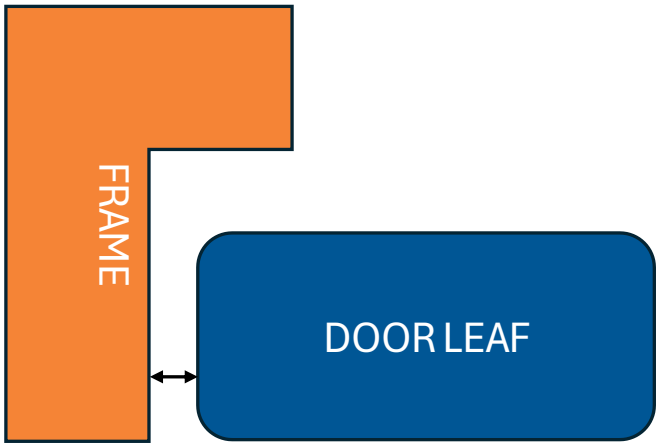


N.B. Images for reference purposes only.
Actual Product may differ dependant on range.

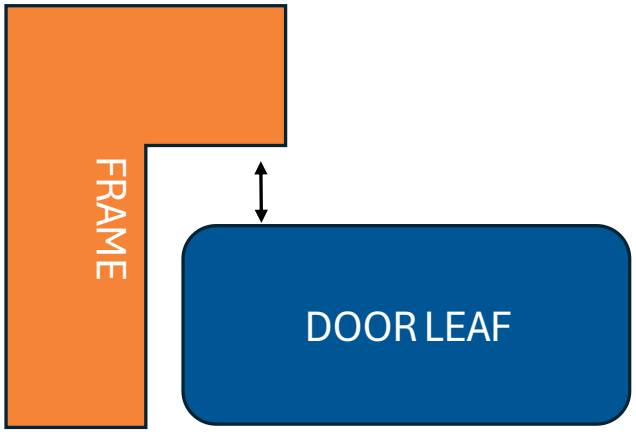
DOOR TO FRAME GAP (SECTION VIEW "A")			
Position	Description	Target	Actual
1	Top Rail to Door Top Edge		
2	Top Rail to Door Top Edge		
3	Lock Post to Door Side Edge		
4	Lock Post to Door Side Edge		
5	Lock Post to Door Side Edge		
6	Door Bottom Edge to Threshold		
7	Door Bottom Edge to Threshold		
8	Hinge Post to Door Side Edge		
9	Hinge Post to Door Side Edge		

DOOR TO STOP FACE GAP (SECTION VIEW "B")			
1	Door to Stop Face		
2	Door to Stop Face		
3	Door to Stop Face		
4	Door to Stop Face		
5	Door to Stop Face		
6	Door to Threshold Face		
7	Door to Threshold Face		
8	Door to Stop Face		
9	Door to Stop Face		

SECTION VIEW "A"



SECTION VIEW "B"



Document Version History

Issue Number	Date	Description of Change	Author
1	13/06/2025	Initial Release	PL / JG
2	26/11/2025	Details of permitted wall constructions added for fire rated doors	DD
3	26/01/2026	Amendments made in line with revised certification.	DD
4	26/02/2026	Amendments as requested by Efectis relating to example label.	DD
5	26/02/2026	Details relating to silicone sealant revised for clarity.	DD

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