



Installation & Fitting

Please follow all the instructions carefully, they have been designed for installation to be completed quickly at the first attempt.

Tools and accessories required for installation

- Wedges and blocks
- Drill and suitable masonry bit
- Set square
- Pozi screwdriver
- Spirit level
- 13mm, 17mm and 19mm spanner
- Shims/packers
- 8mm Allen key
- Mastic

FireLock® assembly instructions

FireLock® doorsets are rated to BS476 Part 22: 1987 up to 4 hours fire resistance when installed correctly within a supporting structure of Class A or Class B engineering bricks or reinforced concrete.

For further technical details of all our locking systems refer to www.sunraydoors.co.uk

Handling and care

FireLock® doorsets are delivered with frame and leaf separated by wooden bearers on a curtain sided lorry and can be unloaded using a fork lift truck.

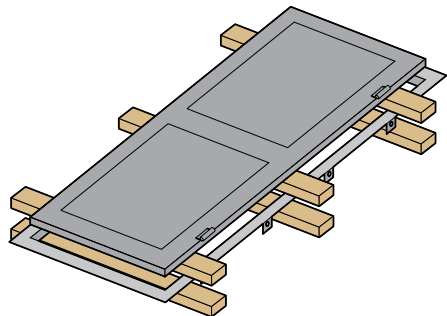
If delivery is on an open-backed lorry they can be unloaded by crane. Use slings to make sure no damage occurs to the panels and frames from the lifting operation.

- Please be aware that these panels are heavy and should be moved in accordance with manual handling regulations.
- Take particular care not to damage the lugs.
- Do not store in exposed places for long periods and protect from weather.
- Protect panels and frame from mud, stray mortar and debris.

Storage

Stackable panels are best stored on a palette or wooden bearers in a dry safe area until required.

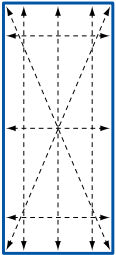
Do not store or stack anything on top of the panels/frames.



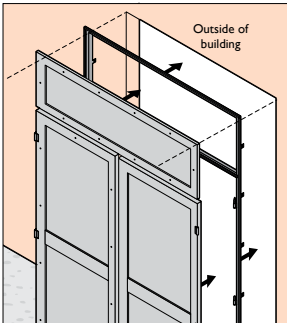
Order of assembly

1. Prepare structural opening.
2. Position the door frame.
3. Fix the frame into opening.
4. Hang the doors.
5. Double doors.
6. Fit door furniture.
7. Fix in overpanels.
8. Apply mastic.

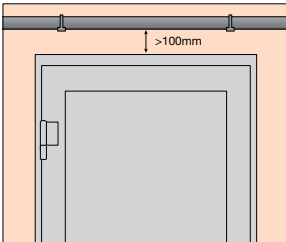
1. Prepare structural opening



Measure the structural opening at several points on the height and width to ensure that it is to the same dimensions as on the delivery note.



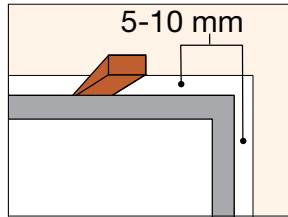
The frame should be inserted in the door opening from the outside of the building.



Due to rising hinges a clearance of at least 100mm is required above the frame on outside of building.

2. Position the door frame

Wedge the door frame centrally into position ensuring it is square and level below.

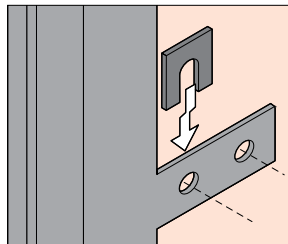


Door frames allow for a tolerance gap 5-10mm between the inside of the angle framework and the structural opening.

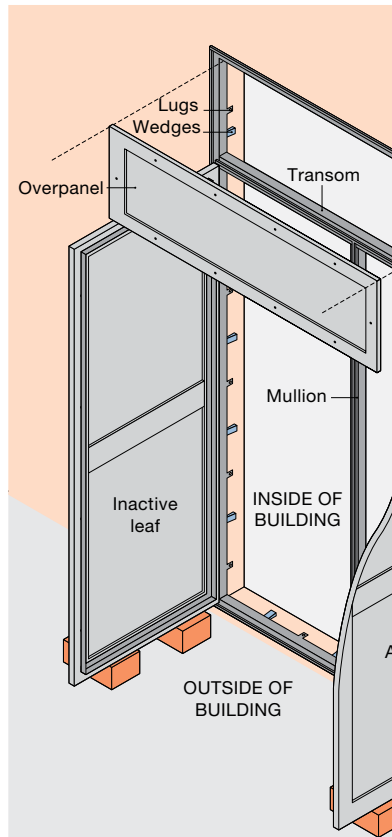
If any gaps are greater than 20mm the door cannot obtain a 4 hour fire rating.

Pack out any gaps between the frame and opening with steel shims/packers at the lugs.

The positioning of the lugs has been designed to avoid horizontal mortar lines.

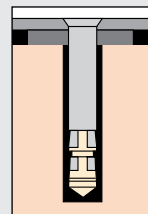


Typical 100mm minimum steel shim/packer (not supplied).



3. Fix the frame into the opening

For the doors to function correctly the frame must be bolted in level and without distortion. Despite the heavy duty nature of the frame distortion can take place.



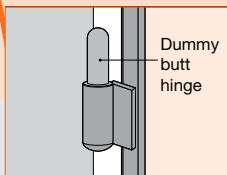
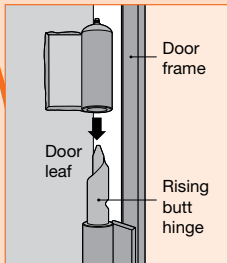
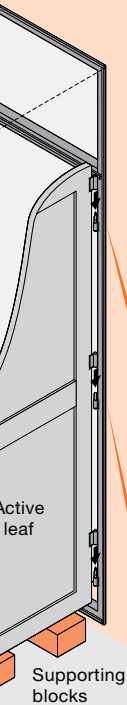
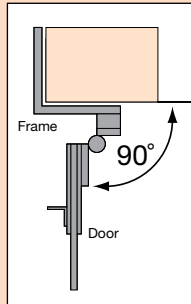
M12 x 115mm min.
Threshold only.

4. Hang the doors

Grease the male parts of each hinge on the door frame (female parts are already greased). Ensure the frame is firmly fixed into place.

Position the active door leaf at 90 degrees to the frame i.e. in the open position.

Slowly push the door closed. It should 'clunk' and drop to be fully engaged.



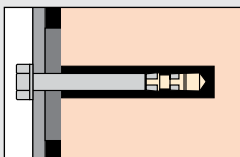
5. Double doors

The inactive leaf is bolted into place using the M10 bolts supplied.

- Remove the bolts (supplied in situ).
- Hang the door (as above). Three dummy butt hinges are used on inactive leaves.
- Bolt the inactive leaf into place from the outside.
- The final bolt is inserted from the inside.

The mullion on double doorsets may be removed after full installation to allow access for large plant equipment.

Check that the frame is level and square. Using a 18mm masonry bit, drill through the holes in the lugs to minimum depth (see below). Bolt in using M12 x 115mm CSK anchor bolts and M16 x 110 anchor bolts. Ensure all nuts and bolts are in place.



M16 x 110mm min.
Head and jamb only.

6. Fit the door furniture

OPTION 1

Three-way locking systems are factory-fitted. If the frame is fitted square and no item has been damaged it will work first time.

OPTION 2

Sunray 6000 - fit as instructions on page 47.

If the doors do not operate properly please see troubleshooting guide.

7. Fix in the overpanels

Overpanels are fixed into place using the M10 bolts supplied. Remove the bolts (supplied in situ).

Bolt through to the frame from the outside.

Secure the final two bolts to each end from the inside.

The overpanel and transom may be removed after full installation to allow access for large plant installation.

8. Apply mastic to ensure fire resistance

After doors are fitted, gaps should be filled with intumescent mastic of a 4 hour fire resistance, that has been tested to BS 476: Part 20, such as that by Winzer Worth Industrial Ltd.

For COSHH and other information visit www.wurt.co.uk or call Sunray on 01233 639039.

Finish

Doorsets are generally supplied with one coat of primer ready for on-site painting after installation. For technical information call Sunray on 01233 639039.

Sunray cannot accept responsibility for any deterioration of the doorsets if the finish coats have not been applied by a fully competent person within a reasonable period. The storage location should reflect this.

The type of finish paint used must be appropriate for the environment in which the doors are situated.

Operation and maintenance

Sunray's range of steel door assemblies are of robust construction and simple operation. Other than good house-keeping, they require minimal maintenance.

However, to ensure efficient operation the following instructions and guidelines should be followed.

1. Annually ensure that the door opens and closes in accordance with the design. Active and inactive leaves should be fully tested.
2. Adjustments to the locking mechanism should be made to ensure correct closure.
3. Annually apply two shots of grease with a grease gun to the grease nipples on each hinge.
4. Annually apply two shots of suitable lubricant to inside and outside of three-way locking system or panic system, whichever is fitted.
5. Annually check the paint finish to ensure that it is giving adequate protection. Touch-in or re-paint as necessary to prevent corrosion. Please see Powder Coating: Cleaning, Maintenance & Repair Guide on page 71 for further information.

FireLock® troubleshooting

Problem	Possible cause	Corrective Action
Doors do not fit in frame.	Wrong door being offered.	Check the ID numbers to ensure they are all the same.
Doors will not drop onto hinges.	Male and/or female hinges bent.	Re-align.
	Frame bowed.	Shim frame to bring square.
Doors will not close.	Mortar fouling closing surface.	Clean out and re-try.
Doors will not shut to frame at top and/or bottom.	Frame out of square.	Correct by shimming as necessary.
	Door bent in storage.	Straighten.
Draw bolts will not engage in the frame.	Debris fouling receiving hole.	Clean out and re-try.
	Frame not level or square.	Correct by shimming.
Door leaves not level at centre.	Frame not level or square.	Correct by shimming.
Panic furniture not operating properly.	External hasp mis-aligned.	Remove, rotate and re-fit.
	Panic furniture on incorrect door.	Check ID numbers match.