

# INSTALLATION INSTRUCTIONS.

For single and double door-sets.

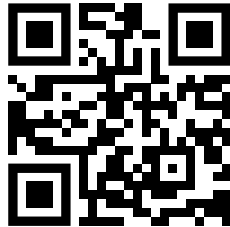
## Any problems?

**Step 1:** View Installation videos here 

**Step 2:** Call us - 01524 727000

[www.strongdor.com](http://www.strongdor.com)

D-44-06



## Pre-Installation.



### GENERAL SAFETY.

- Never fit the door-sets until you have fully read and understood the instructions in this guide and the workplace has been properly set up using the information it contains.
- Strongdor doors are intended for professional installation only and it is recommended at least 2 people install a door-set. Ensure the installer(s) are trained and competent professional with the relevant qualifications.
- Your organisation's risk assessment policies and method statements should be carried out separately. There is a serious risk of personal injury if you do not follow all instructions.

### IMPORTANT.

Strongdor is a manufacturer of high quality, British made bespoke steel doors but is not responsible for the installation of our products. The warranty we give and commitments we make as to the quality and any certification associated with our products are conditional on our products being correctly and properly installed with all specified fixings and components using any tools indicated.

As per our Terms and Conditions of Sale, Strongdor shall have no liability for any product quality issues caused by incorrect installation and the warranty and manufacturer's guarantee will be invalidated by any failure to install the products correctly.

To assist our customers with installing Strongdor products we have issued these general installation and maintenance instructions. Please note that methods of installation may vary from site to site and the recommendations we make in these instructions do not constitute advice. We recommend that you only install the products if you are appropriately experienced and competent with installing steel doors.

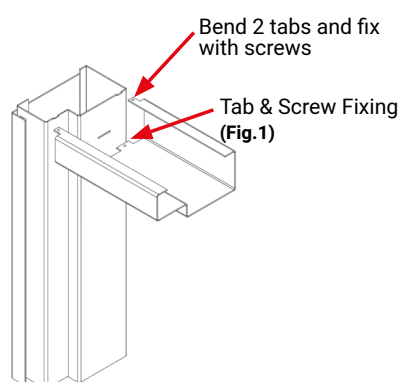
Please consult our Terms and Conditions of Sale for the legal terms that apply in relation to our sale of the products or contact us for more information.



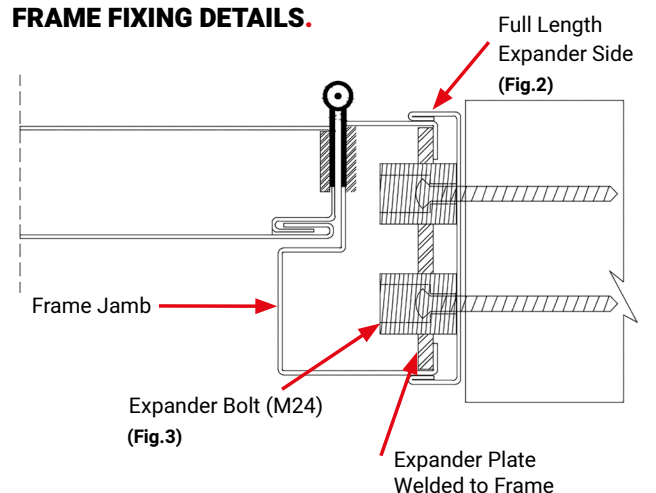
## Checklist.

- Check the packaging content is not damaged. All transport damage must be reported before installation and within 24 hours of delivery.
- Packaging is complete and all items from the delivery note are present.
- The area is clear of all obstructions before laying the components down on the ground to protect them against damage and scratches.
- Check it is safe to drill around the structural opening (electrical cables, gas pipes etc).
- Check the dimensions on the white label on the packaging match the structural opening that you intend to fit the door to.
- Locate your keys in the fixing kit box.

### FRAME & EXPANDER SIDE.



### FRAME FIXING DETAILS.



## Installation.

### STEP 1 ASSEMBLE FRAME & THRESHOLD.

- For unbuilt frames, lay the frame components on a flat surface and attach the header to the jambs at the corners, using the **tabs and tek screws provided** (Fig.1).
- If no threshold is required, please skip to step 2.
- With the help of mole grips, hold the threshold on both sides to the bottom of the frame. Make sure that the width at the bottom of the frame matches the width at the top, this will help ensure the door fits freely in the frame.
- Once the threshold is perfectly aligned, fix the threshold to the base of the frame using the self-drilling screws provided or rivets.

### STEP 2 DOOR FRAME INSTALLATION.

- For a single door, remove the leaf from the frame.
- The door set includes expander sides that can expand up to 12mm on each side to accommodate structural variations, to a maximum of 24mm.
- The expander side fits over the frame jamb (Fig.2).
- Offer the frame into the structural opening and adjust your expander bolts (Fig.3) with the hex bar provided in your fixing kit, so the frame holds itself square in the structure. The expander bolts (Fig.3) need to be just tight enough to hold the frame in place, so do not over-tighten.

- Check with the spirit level that your hinge jamb is aligned (single), ensure the hinge jamb is plumb, and adjust accordingly. For a double door, this step applies to the passive hinge jamb only. On a double door, it is best to fix the passive hinge jamb first, leaving the active leaf loose.
- When the frame is in position, begin at the hinge jamb, and drill through the expander bolts into the surrounding structure. Take care not to damage the expander bolts (Fig.3).
- At this stage, we suggest fixing only the top expander bolt (Fig.3) of the hinge jamb on the rebate side.
- Check with a spirit level that the jamb is still plumb and place the second fixing at the rebate in the bottom of the hinge jamb.

**STEP 3: SINGLE DOOR** **INSTALLING THE DOOR TO THE FRAME.**

- Now that the hinge side is secured to the aperture, you can re-attach the leaf to the frame.
- Close the door leaf into the strike jamb, and if necessary, manipulate the strike jamb to meet the door leaf, ensuring the astragal is parallel with and touching the strike jamb. (view our installation videos via the QR code on the first page on how to do this).
- Check the clearance between the frame and the leaf is approximately 3mm. If needed, you can adjust this clearance by adjusting the expander bolts using the hex bar.
- Add one fixing to the top strike jamb with the door closed. Ensure the door leaf is still plumb on your strike jamb after firm fixing. Then add further fixings at the bottom of the strike jamb. **Please note, due to the nature of the steel, some further manipulation may be required.**
- Check the operation of all door furniture, being careful not to damage them.
- Drill through the remaining expander bolts (Fig.2) and add fixings.

**DOUBLE DOOR**

- Now that the passive hinge side is secure to the aperture you can attach the **passive leaf** only to the frame.
- Close the passive leaf and manipulate the opposite jamb so that the passive leaf closes properly and looks parallel to the header and threshold.
- With the passive leaf closed, add one fixing to the top of the active leaf jamb on the rebate side.
- Now attach the active leaf, close it and, if needed, manipulate the bottom of the active leaf jamb to ensure that both astragals are touching each other from top to bottom, a tolerance of 3mm is allowed.
- Check the clearance between the active and passive leaf is no more than 3mm. If needed, you can adjust this clearance by adjusting the expander bolts (Fig.2) using a hex bar. **Please note, due to the nature of the steel, some further manipulation may be required.**
- Drill through the remaining expander bolts (Fig.2) and add fixings.

**STEP4** **FINAL CHECK.**

- Check that the door opens and closes easily.
  - Attach the seal supplied, ensuring you follow the fitting instructions provided.
  - Re-check that the door is fully operational with no binding and adjust the adjuster bolts if necessary.
  - All seals provided must be installed in accordance with the instructions below. If needed, intumescent seals can be trimmed around the plastic caps or the hardware.
- Manufacturers recommendations for fire-rated doors:**
- All provided fixing points must be utilised, do not add or take away from the quantity of fixings provided as this will invalidate the fire-rating.
  - Clearance measurement between the leaf and frame is 4mm maximum. The undercut between the bottom of the door should be below 14mm for uninsulated and 4mm for insulated doors.
  - Any small gaps between the frame and structure should be taken up using one of the following fire rated sealant: Everflex Fire mate, Fischer Fire Stop FiGM, Soudal Fire Silicone B1 FR or Soudal Firecryl FR.



**FIRE RATED DOORS.**

**PERMISSIBLE STRUCTURES – INSULATED & UNINSULATED**

- A) Reinforced concrete walls, with a density of at least 2100 kg/m<sup>3</sup> and a thickness of at least 140 mm.
- B) Blockwork, masonry, or homogenous concrete wall with an overall density at least 2100 kg/m<sup>3</sup> having a thickness of a least 140 mm.
- C) Uninsulated only – Flexible supporting construction as described in paragraph 7.2.2.4. of standard EN 1363-1:2020, of which the fire performance duration is at least equal to those of the doors.

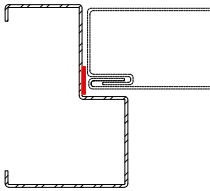


**INTUMESCENT SEAL INSTALLATION.**

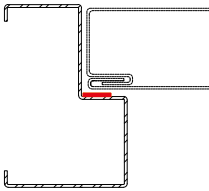
**MUST BE FITTED FOR FIRE-RATED DOORS**

**SINGLE DOOR**

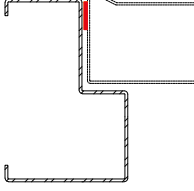
HINGE SIDE (Option 1)



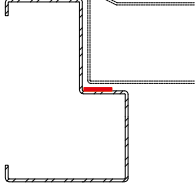
HINGE SIDE (Option 2)



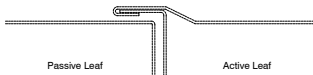
LOCK SIDE (Option 1)



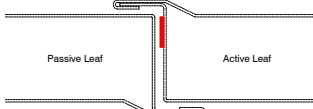
LOCK SIDE (Option 2)



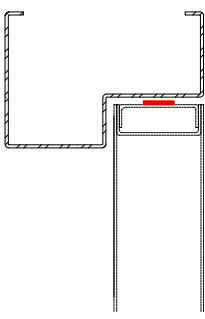
**DOUBLE DOOR (Option 1)**



**DOUBLE DOOR (Option 2)**



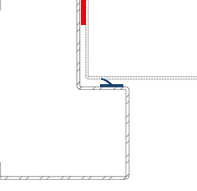
TOP OF THE LEAF



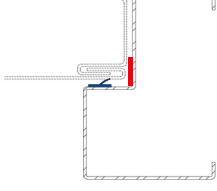
**TEE FIN SEALS INSTALLATION.**

**SINGLE DOOR**

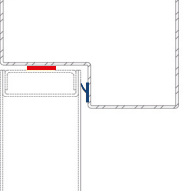
LOCK SIDE



HINGE SIDE

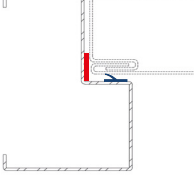


HEADER

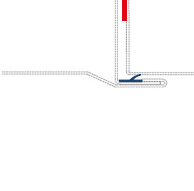


**DOUBLE DOOR**

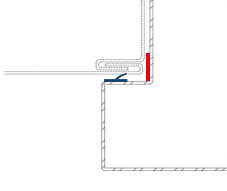
HINGE SIDE



HINGE SIDE



HINGE SIDE



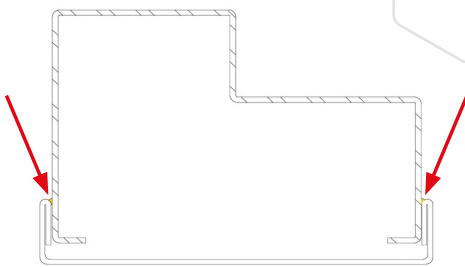
Tee Fin Seal



Examples of where the intumescent seal can be installed.



**SMOKE OR WEATHER RATED DOORS.**



The Expander side should be sealed with silicone (approved fire silicone if the door is fire rated).

For watertight doors, the vision frame should be sealed with silicone on the outside, and the entire frame should be fully sealed with silicone to ensure a secure, watertight fit.



**TOUCH UP PAINT.**

Strongdor supplies a paint touch-up system as part of the standard fixing kit. You can use it to cover paintwork scratches and chips, or for sealing the edges of a trimmed side expander frame as the powder supplied is an exact colour match to the door.

1.



Remove the small powder coating pot from the top of the touch-up stick. Your coloured powder paint is concealed within the cap.

2.



The touch-up pot can be opened up fully to help add the powder.

3.



Shake well.

4.



Apply as required.

**UNSURE ON HOW TO INSTALL THE SEALS PROVIDED?**  
**SCAN THE QR CODE FOR THE ANSWERS.**

Call us - **01524 727000**  
[www.strongdor.com](http://www.strongdor.com)

