

# Installation Instructions

## General fire door installation instructions

### Points to check before installation

- Check that the installer's declaration has been received. This form is to be completed and returned for the issuing of fire door certification labels.
- Check that all hardware and fixings are on hand. All fire doors are required to have door closers and a self-latching or locking system. All hardware fitted to fire doors must comply with fire rating approvals. If unsure, please check with New Zealand Fire Doors or refer to the Design Guide on our website [www.nzfiredoors.co.nz](http://www.nzfiredoors.co.nz)

### Installation instructions

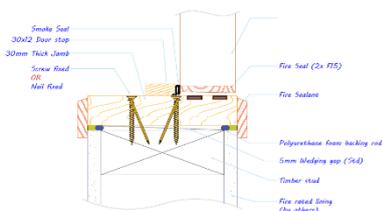
- Check the required sill gap (be sure to make allowances for floor coverings). Trim or pack the bottom of jambs to reduce or increase sill gaps, as required.
- Position doorset in opening, ensuring square and true.

## Timber Jambs

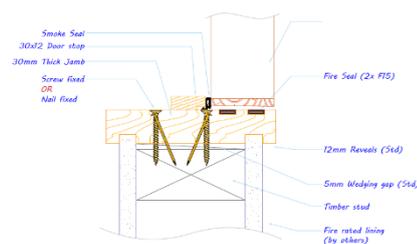
### Timber and Steel Stud walls

Wedge/pack gap between back of jamb and framing. Nail or screw-fix (100mm nails, 75mm screws) at and opposite hinge points and at head. Fixings are to be concealed by the planted stops (fitted later). Wall linings are to slot into jamb rebates where applicable, to seal the wedging gap. Where linings do not slot into the back of the jambs, the wedging gap is to be back-filled (with Kaowool, Rockwool, fire rated foam or Intumescent mastic sealant). If fire rated linings slot into grooves or rebates in the jambs on both faces, the wedging gap does not need to be back-filled for fire requirements, but may be required for acoustic requirements.

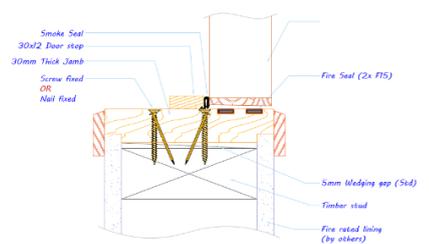
T1 Timber Stud



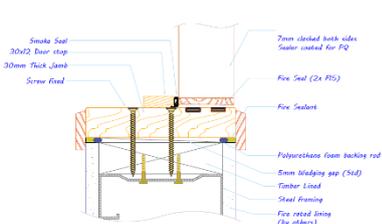
T2 Timber Stud



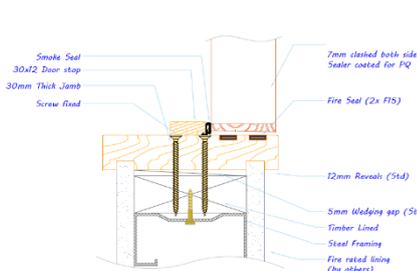
T3 Timber Stud



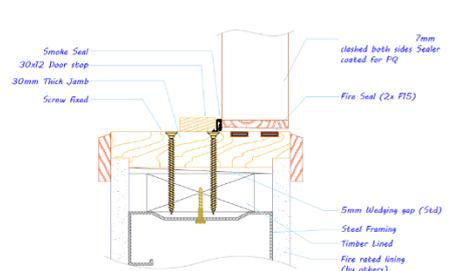
T1 Steel Stud



T2 Steel Stud



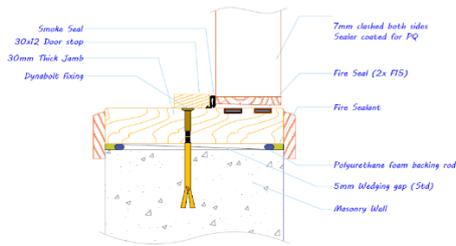
T3 Steel Stud



### Masonry walls

Pack and fix (min. 9mm diameter x 100mm long masonry bolts) at and opposite hinge points and at head. Fixings are to be concealed by the planted stops (fitted later). Stop the wedging gap between the jamb and masonry using cement grout.

T1 Masonry Stud



- c) Fit the latch to doorleaf using parallel shank screws. Pre-drill holes. Adjust to ensure that the door latches automatically, from any position.
- d) Fix planted stops using 50mm jolt head nails at 300mm centres. (see tolerance table and sketch below for fitting of smoke seal after painting).
- e) Fit closer to doorleaf using parallel shank screws. Pre-drill holes. Adjust to ensure that the door latches automatically, from any position.
- f) Complete the Installers Declaration and return promptly to the door manufacturer. Labels will be dispatched with fitting instructions.

**Paint Quality doors**

Finishing must be carried out according to paint manufacturer’s recommendations for Triboard substrate to achieve optimal results

**Double Acting doors**

Notes set out above apply to most aspects of installation. Normally double acting doorsets come with concealed transom closers, supplied and fitted. Floor spring closers are available, for fitting by others on site.

**Tolerances**

Door jamb to steel stud	10mm (timber braced)
Door jamb to timber stud	10mm max.
Door jamb to masonry wall	10mm max.
Leaf to door jamb	4mm max. (Must open & close freely)
Leaf to finished floor level (FFL)	10mm (plus thickness of floor covering, to a max of 25mm over FFL)
Leaf to face of stop (before seal fitted)	5mm (smoke seal fitted after painting)
Between pairs of doors	Brush-seal must touch opposite leaf (see NZFD if longer brush is reqd – extra cost)

**Steel jamb back filling requirements (insulation values)**

Steel jamb backfilling requirements											
Notes: Type 7 Split jambs do not need to be backfilled.											
Type 5 and 6 jambs for Masonry OR GIB walls											
	-/30/-	-/30/30	-/60/-	-/60/30	-/60/60 triboard only	-/90/-	-/90/30	-/120/-	-/120/30	-/240/-	-/240/30
upto 2400 x 1200	NO	YES	NO	YES	YES	NO	YES	NO	YES	NO	YES
over 2400	NO	YES	NO	YES	YES	NO	YES	NO	YES	NO	YES
upto 2400 x 1200/1200 PAIR	NO	YES	NO	YES	YES	NO	YES	NO	YES	NO	YES
over 2400 x 1200/1200 PAIR	NO	YES	NO	YES	YES	NO	YES	NO	YES	NO	YES
Speedwall jambs											
	-/30/-	-/30/30	-/60/-	-/60/30	-/60/60 triboard only	-/90/-	-/90/30	-/120/-	-/120/30	-/240/-	-/240/30
upto 2400 x 1200	NO	YES	NO	YES	YES	NO	YES	NO	YES	cant make in speedwall	cant make in speedwall
upto 2400 x 1200/1200 PAIR	NO	YES	NO	YES	YES	NO	YES	NO	YES	cant make in speedwall	cant make in speedwall

## T4 – Single Fin Steel Jamb (note back filling requirements if insulation rating required)

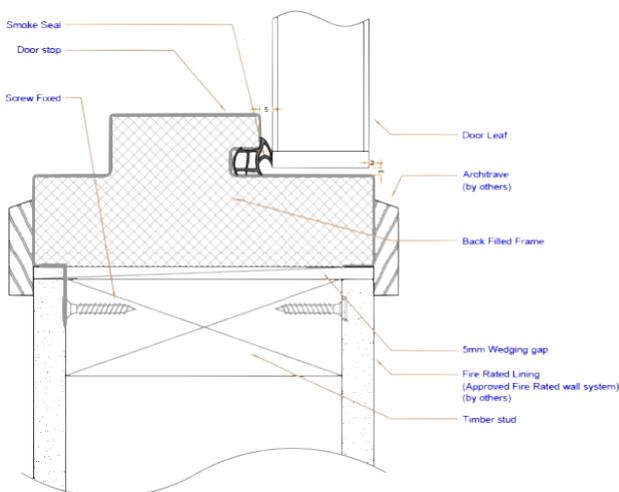
NZ Fire doors hinged fire doorsets recommended fixing instructions for up to 180 minute doorsets in approved stud walls.

**THESE STEEL JAMBS MUST BE INSTALLED BEFORE WALL LININGS ARE FITTED**

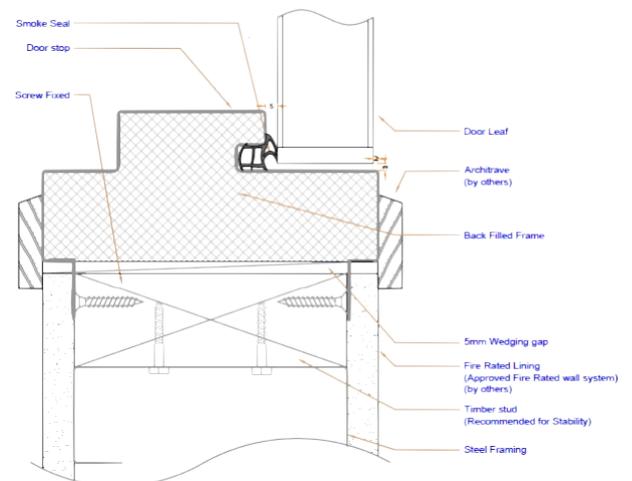
### Before Installation

1. Ensure that the correct door is to be installed in the opening.
2. Check for damage caused during delivery, or storage on site. Notify the contractor immediately if damage is present.
3. Ensure that any hardware ordered, and the Installers Declaration has been supplied.
4. Important Note: It is critical that the partition be installed in accordance with the supplier's instructions. Special attention should be paid to requirements for expansion gaps at the top of the studs.

T4 Timber Stud



T4 Steel Stud



### Installation

1. Remove the door leaf from the jamb.
2. If the doorset has an insulation components, pack the steel door jamb with plasterboard, plaster or cement grout. Plaster may be used up to FRR -/120/50.
3. Stand the steel door jamb centered in the opening, ensuring even clearances.
4. Check diagonal measurements. Fix the door jamb to the studs with 4.9mm diameter steel pop rivets (for steel stud) or minimum 25mm nails or screws (for timber stud) at spacings provided on fixed leg of jamb. Ensure that the jamb is square and true. Readjust if necessary to ensure square.
5. Fit wall linings ensuring the overlap return legs of steel jambs on the opposite side of the wall, slide stud clips provided over horizontal steel strips at back of jamb. (Located at and opposite the hinges)  
Note: Nail, screw or rivet into stud to lock jamb into position.
6. Rehang the door leaf.
7. Fit hardware to the manufacturer's instructions. Adjust the closer settings so that the door closes fully, without excessive slamming.
8. Check that the door clearances are adequate. Check that the door swings freely and that it self latches automatically. For pairs of doors, with rebated meeting styles, a sequence closing device must be fitted.
9. Complete the Installers Declaration and return as soon as possible to:  
NZ Fire Doors Ltd, P.O. Box 12709, Penrose, Auckland 1642 Or  
Fax 09 579 2933 or email to: [info@nzfiredoors.co.nz](mailto:info@nzfiredoors.co.nz)

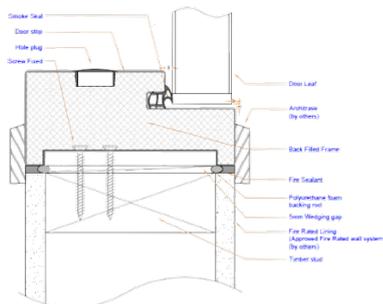
## T5 & T6 Steel Jamb

NZ Fire Doors hinged fire doorsets recommended fixing instructions for masonry walls.

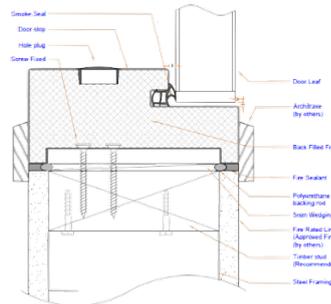
### Before Installation

1. Ensure that the correct door is to be installed in the opening.
2. Check for damage caused during delivery, or storage on site. Notify the contractor immediately if damage is present.
3. Ensure that any hardware ordered, and the Installers Declaration has been supplied.

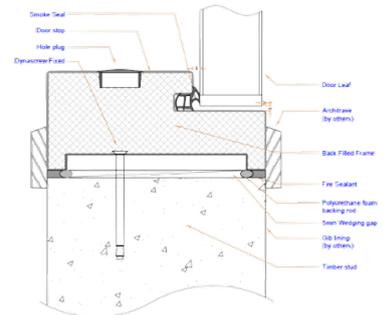
T5 Timber Stud



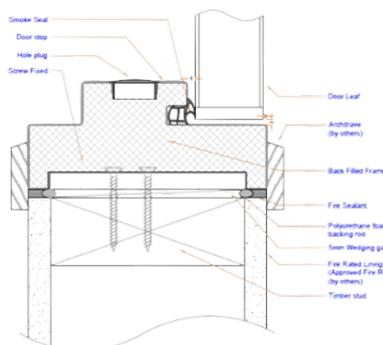
T5 Steel Stud



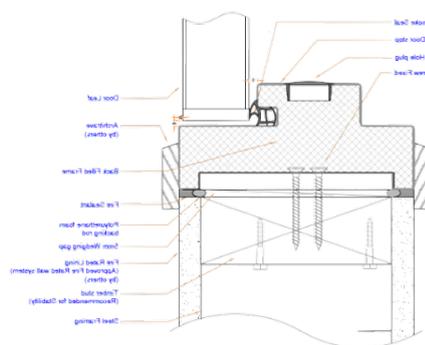
T5 Masonry Wall



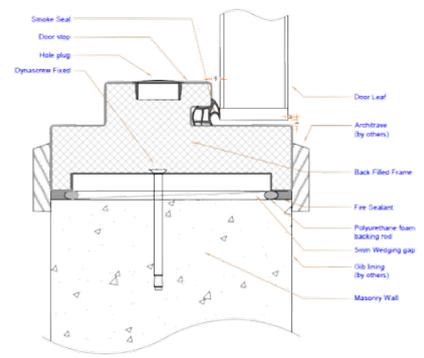
T6 Timber Stud



T6 Steel Stud



T6 Masonry Wall



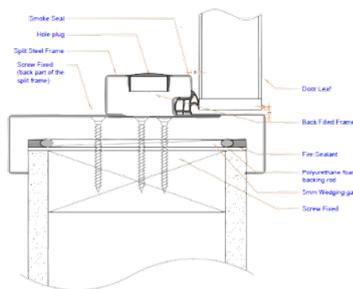
1. Remove the door leaf from the jamb.
2. Cut the spreader bar off the bottom of the steel jamb.
3. Insert the jamb into the opening. When fitting into external walls, set the steel jamb back into the opening, or provide a weather lip to prevent rain water from seeping onto the top of the leaf.
4. Wedge the steel jamb into position, checking that the jamb is square and true. Check diagonal measurements.
5. Drill holes for the masonry anchors, (Dynabolt D10-100F), and then fit them, ensuring that they do not distort the alignment of the jamb. Note that the jamb and leaf must be sufficiently secure to prevent warpage due to grouting.
6. If a doorset insulation component is required, the jamb must be backfilled. If not protruding, leave wedges in place, fit backing rods and apply Fyreflex sealant to both sides of the jamb. The depth should equal the width of the gap. Max width 10 mm. Allow 600ml for a typical single leaf installation. Fyreflex is available from NZ Fire Doors. Keep sealant dry during the curing period (7 days).
7. Grout the jamb into position. This can be done by knocking a segment out of a block in the head and pouring grout into the cavity, or piping in through the fixing plug cap points.. The gap between the wall and the jamb may require sealing with a temporary bead to prevent grout leakage. Plaster may be used up to a -/120/50 rating.
8. Finish gaps between jamb and wall with grout mix or plaster. Clean any surface grouting from the wall or jamb.
9. Fit approved hardware to the manufacturer's instructions and check that any latching device will engage freely. For pairs of doors, a sequence closing device must be fitted. Refer to the Hardware List supplied with door or refer to our website – [www.nzfiredoors.co.nz](http://www.nzfiredoors.co.nz).
10. Complete the Installers Declaration and return as soon as possible to:  
NZ Fire Doors Ltd, P.O. Box 12709, Penrose, Auckland 1642 Or  
Fax 09 579 2933 or email to: [info@nzfiredoors.co.nz](mailto:info@nzfiredoors.co.nz)

## T7 Steel Jamb (NO back filling required)

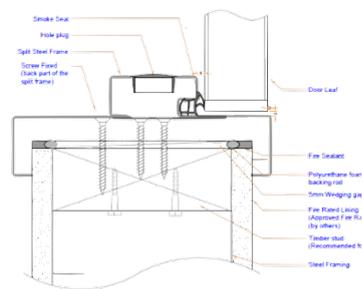
T7 jambs are split into a front and back. The door is hung on the front, and the back is a non-structural cover capping only.

1. Follow steps 1-6 for T5 & T6 jambs. Note there is no option to backfill T7 jambs with grout.

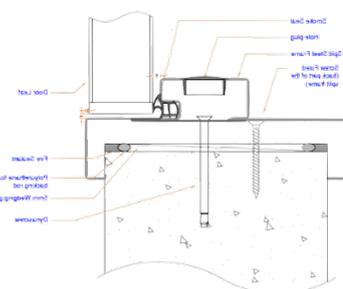
T7 Timber Stud



T7 Steel Stud

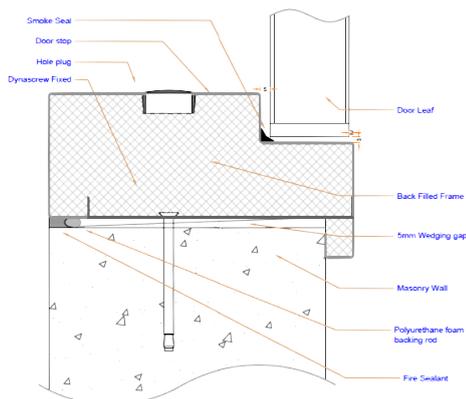


T7 Masonry Stud



## Speedwall Jamb (Steel) (Note back filling requirements if insulation rating is required)

Speedwall jambs are screwed or dynabolted into a metal channel that lines the opening in the speedwall. A flat strip is supplied as an architrave for the back



## T8 Steel Jamb

NZ Fire Doors double acting fire doorsets recommended fixing instructions for stud walls

### Before Installation

1. Ensure that the correct door is to be installed in the opening.
2. Check for damage caused during delivery, or storage on site. Notify the contractor immediately if damage is present
3. Ensure that any hardware ordered, and the Installers Declaration has been supplied.
4. If the door is shorter than 2400 mm high or narrower than 1200 mm wide, and FRR -/120/- or less, the frame does not have to be back filled (though this may be desirable for rigidity, or for security). If a doorset insulation component is required, the frame must be backfilled, with cement grout, plaster or gib board (if gib board fitted this is done before installation).

### Installation

1. Stand the steel door jamb centered in the opening, ensuring even clearances.
2. Check the required sill gap (be sure to make allowances for floor coverings). Trim or pack the bottom of jambs to reduce or increase sill gaps, as required.
3. Check diagonal measurements to ensure unit is square. Fix the door jamb to the studs with 4.9mm diameter steel pop rivets (for steel stud) or minimum 10 gauge x 50mm screws (for timber stud) at spacing's provided on jambs. Ensure that the jamb is square and true. Readjust if necessary to ensure square.
4. If not protruding, leave wedges in place, fit backing rods and apply Fire rated sealant to the wedging gap to both sides of the frame. The depth should equal the width of the gap. Max width 10 mm. Allow 600ml for a typical single leaf installation. Backfill frame if required.
5. Recheck that the jamb is square and true. Readjust if necessary
6. Install the leaf following the installation instructions that are supplied with the door closer pivot set. The critical step is to ensure that the top pivot centre point is transferred to the floor for the bottom pivot centre point using a plumb line, to ensure the leaf will open and close without binding.
7. Complete the Installers Declaration and return as soon as possible to: NZ Fire Doors, P.O. Box 12709, Auckland 1642 OR Fax 09 579 2933. Or email to : [info@nzfiredoors.co.nz](mailto:info@nzfiredoors.co.nz)

## P-Core Doors

### Structural openings

The following types of structural openings are approved for P-Core doors:

- Cast dense concrete
- Dense concrete blocks or brickwork
- Masonry
- Lightweight concrete
- Lightweight and aerated concrete
- Timber stud partition
- Steel stud partition

### P-Core Door site fixing instructions

Refer to NZFD's Approved Hardware document for compatible fire rated door hardware.

### Exterior Applications

When installing in an exterior location the door jamb should be set back from the outer face of the wall. The door head must be protected by a canopy or the head of the jamb should be provided with a projecting head flashing.

Particular attention should be given to the protection provided for an outward opening external door.

The installation of a weather bar at the threshold is considered good practice for exterior doors.

Mortise locks - Ensure the mortise is accurately machined and a snug fit for the lock is maintained. The mortise should be properly sealed before fitting the lock.

If cutting or drilling is required on an exterior door or jamb you must coat the newly exposed timber with a suitable preservative and re-coat with primer or stain.

If installing letter plates, these should be of the sleeved type to ensure against water ingress into the door core. In fire doors letter plates must be of an approved fire resisting design.

### Finishing

At least one of the finishing coats should be applied to exterior doors and jambs as soon after delivery or installation as possible. If any deterioration of the factory applied primer or base coat is detected it should be re-coated before further finishing coats are applied. Finishing of exterior doors and jambs should be carried out in dry weather using good exterior quality materials in accordance with the manufacturer's instructions.

The finish for exterior doors should be exterior quality paint or 'high build' stain. 'Low build' stains are not suitable for external applications. Please note that if dark coloured paint or stain finishes are used on exterior doors this may result in high surface temperatures on the door and can increase the risk of distortion if the door is located on a north or north-west elevation of the building. Resene "Cool Colour" paints should be considered in such situations. The full finishing system must be applied to external doors and all doors that will be subjected to moisture take up. The bottom edge must be coated before installation.

NZ Fire Doors may refuse responsibility for any defect or failure that may consequently occur which is attributed to non-compliance either wholly or in part with the advice given in this information sheet.

## Fire Tags

All installed fire rated doorsets must have certified fire tags attached to the doorset to provide evidence of NZS4520 and NZBC compliance. Every fire rated doorset supplied by NZ Fire Doors comes with an Installers Declaration that must be completed by the installer and returned promptly to NZ Fire Doors for the issue of fire tags. The declaration needs to detail the approved hardware that has been installed with the doorset. We will provide fire tags when we receive the declaration and it meets our requirements.

