

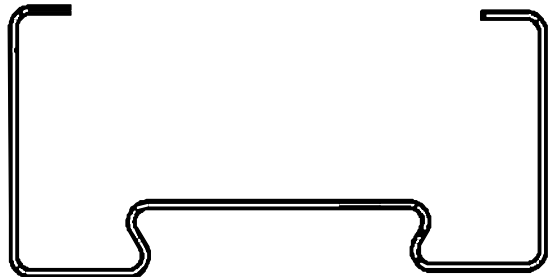


## SITE REFERENCE

### Construction of a SUPRAFRAME® Open Stud Wall Framing System

August 1996 Issue 2

*600mm stud spacing  
Tile Roof  
Single Storey  
W28 - W41N*



This document is to be used in conjunction with the Construction Manual for SUPRAFRAME® Wall Framing System (Issue 1).

It is not meant to be used as the only source of construction specification.

Many common questions raised when erecting a SUPRAFRAME® Wall Framing System are answered in this document so it will be useful as a site reference.

Specifications included in this document are subject to change without notice. Reference must be made to a controlled issue of the SUPRAFRAME® Construction Manual for current specifications.

OPEN STUD

# GENERAL

## DOCUMENTATION

Upon delivery of wall panels the supplier shall provide the following site documentation:

- Wall Panel Layout
- Details of Custom connections (*if applicable*)
- Summary of ancillary components
- Tie-Down details

## ON-SITE INSPECTION

Panels and wall components should be inspected on arrival at site. Any damaged parts should be reported immediately to your supplier.

## SITE MODIFICATIONS

Minor modifications of panels are easily made on-site if required by the client. However, check with your frame supplier for any structural implications.

## ON-SITE HANDLING

On delivery of wall frame panels, break open packs and cross reference each panel with the panel layout. Place panels around the site in their approximate setout positions while isolating components such as beams and temporary props. When handling panels, take care not to damage components.

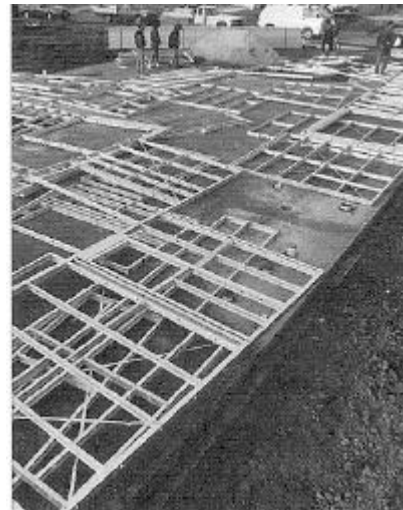


## WALL PANEL ORIENTATION

A good panel numbering system (see below) and frame plan drawing will ensure each panel is installed the right way up and right way round.

## WALL PANEL NUMBERING

In assembly, bottom plates are marked with serial numbers to accurately identify panel and junction numbers with reference to the panel layout.



## SAFETY EQUIPMENT

When erecting a steel frame, the following safety equipment is required.

- Safety goggles
- Hearing protection
- Protective gloves
- Earth leakage circuit breaker for power tools

# FRAME ERECTION

Study your panel layout.

Mark wall positions on the floor with a chalk line as per the panel layout. It is essential to square a major external corner from which the remaining setout can be measured.

Unpack the panels and lay each around the site near their required setout positions. Ensure junction numbers match those of incoming walls.



Starting from a convenient corner, stand and support one external panel.

Stand an adjacent or intersecting panel and locate your mid-connector plate. Using your thumb or a hammer, bend up appropriate tabs to the horizontal and insert through the service hole of the incoming wall. Tab down with a hammer to secure your incoming panel.

Continue erecting panels as per previous step until the entire frame is standing.

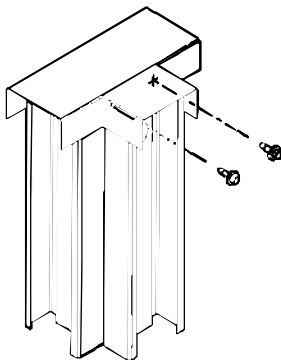
Secure panels with two frame screws into the top and bottom of every panel junction. Screw through the top and bottom plates into the side of incoming studs as indicated in *Diagram 1*.

Where a braced internal wall intersects an external wall, install a shear connector as indicated in *Diagram 2*.

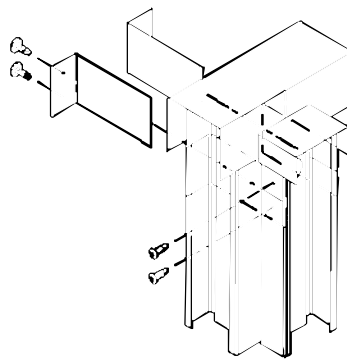
If a double lintel extends over the junction of a braced internal wall and external wall, install the two angle shears below the lintel.



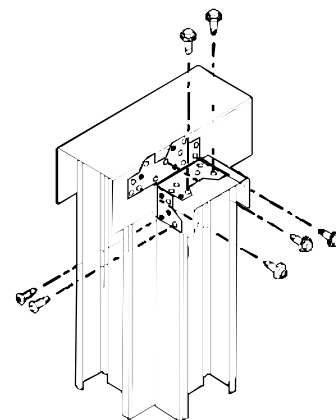
Additional angle shear connectors must be fixed around corner junctions as per *Diagram 3*



*Diagram 1*



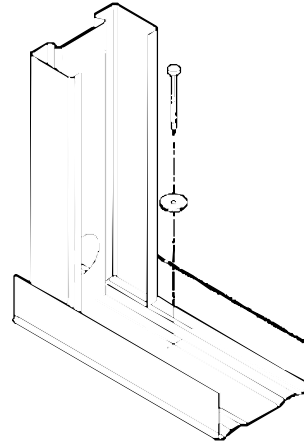
*Diagram 2*



*Diagram 3*

# FRAME ERECTION

Tie-down fasteners must be fixed beside jamb studs, at brace points and at every second stud. Tie-down fasteners shall be a maximum 45mm from the stud face in all cases. On external walls, tie-downs shall be a minimum 60mm in from the outside edge of the bottom plate.



If a panel layout requires a bulkhead beam, install now as per page 6. Unlike garage and verandah beams, bulkhead beams must be installed before the frame is braced.

Gauge the plumb of the frame with a straight edge and spirit level. Adjust tensioners on strap bracing to plumb the frame. Install temporary bracing where required.



When the frame is plumb, strap bracing must be nailed or screwed off at each stud intersection.

Cut out bottom plates at door openings. This is best done with an angle grinder or tin snips.

Once all wall panels have been installed, the frame must be earthed in accordance with local regulations.

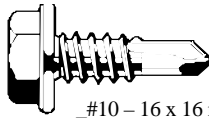


# FASTENERS

## FRAME ERECTION

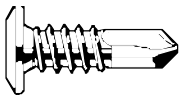
For frame erection, the following screws are required

#10 – 16 x 16 mm hex head screws



#10 – 16 x 16 mm hex head screws

#10 – 16 x 16 mm wafer head



#10 – 16 x 16 mm wafer head screws

- *General panel fixing*

- *Fixing of shear connectors*

- *Fixing off of diagonal wall bracing in cavities*

- *Fixing off of diagonal wall bracing on internal walls.*

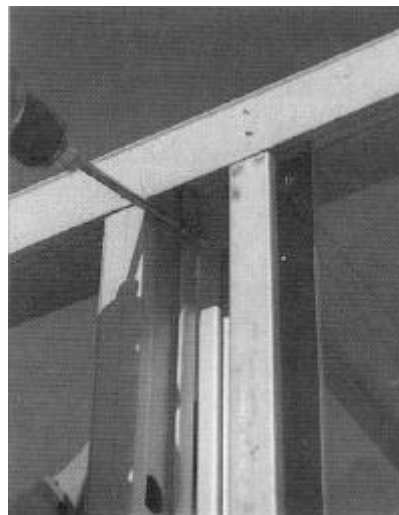
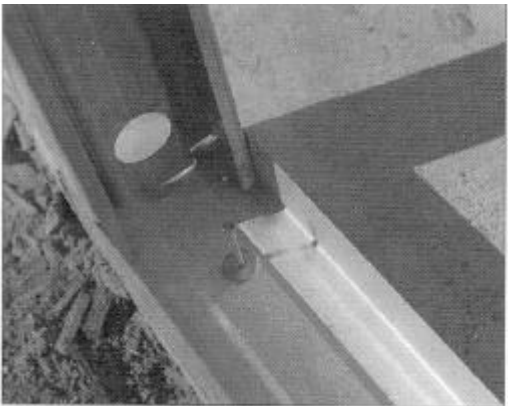
## TIE-DOWN

For tie-down of frames in general wind category W33 for tile roof houses, the following nail is required.

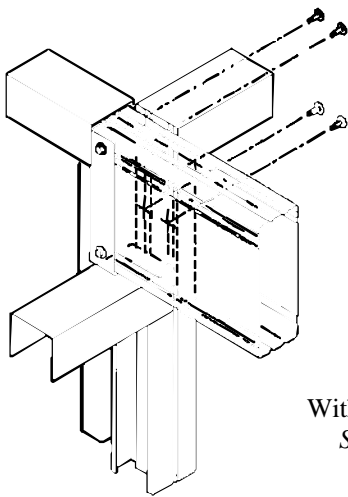
- RAMSET 38mm hand-driven concrete nail with 15x dia. 1.5mm washer



Fix beside jamb studs, at brace points and at every second stud. Tie-down fasteners shall be a maximum 45mm from the stud face in all cases. On external walls, tie-downs shall be a minimum 60mm in from the outside edge of the bottom plate.



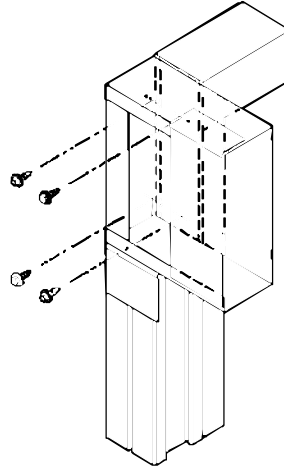
# BEAM INSTALLATION



#10-16x25mm  
screws

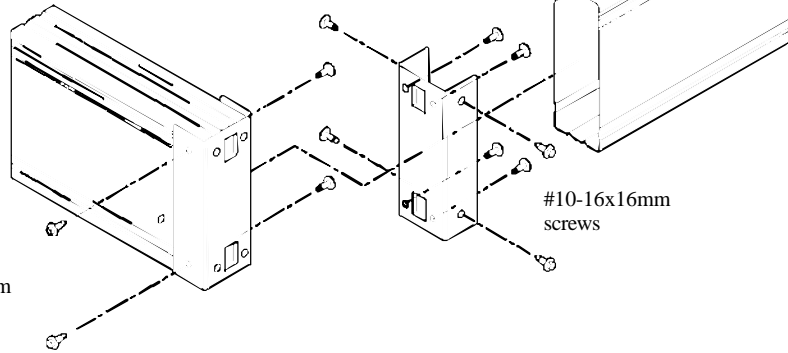
#10-16x25mm  
screws

**Bulkhead Beam**  
With intersecting wall using  
*SPANTEC Boxspan™*



**Garage & Verandah Beam**  
Beam to Frame connection  
with 90 deg Joint Pocket fix  
using *BHP Cee Purlin*

**Garage & Verandah Beam**  
*SPANTEC BoxSpan™* Beam  
to Beam Connection

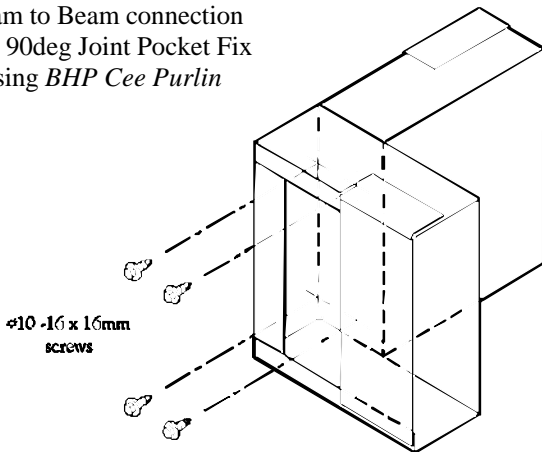


#10-16x16mm  
screws

#10-16x16mm  
screws

#10-16x16mm  
screws

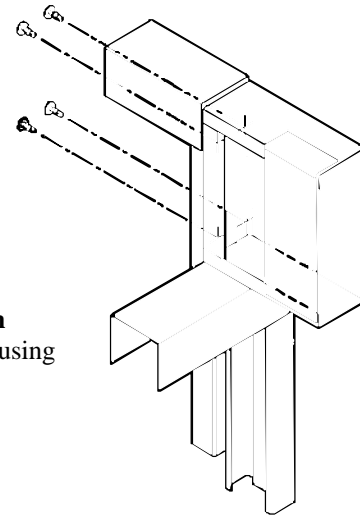
**Garage & Verandah Beam**  
Beam to Beam connection  
with 90deg Joint Pocket Fix  
using *BHP Cee Purlin*



#10-16 x 16mm  
screws

#10-16x25mm  
screws

**Bulkhead Beam**  
NO intersecting wall using  
*BHP Cee Purlin*



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