INSTALLATION GUIDE

Gable Homesheds

FIXING TO CONCRETE SLAB

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These pages are designed to give you the basic assembly techniques to fix your Stratco Gable Homeshed onto a concrete slab.

Please use this installation guide in conjunction with the main set of instructions "Stratco Gable Homeshed, Framework" supplied with your Homeshed, as well as the door installation instructions appropriate to the Type of Homeshed purchased.

TOOLS REQUIRED

Rivet Gun

Vice Grips

Step Ladder

Tape Measure

Spanner

Hacksaw

Pliers

Spirit Level

Power Drill

5/16" Hex Head Adaptor

Permanent Marker

Caulking Gun

Chemical Injection

Tin Snips

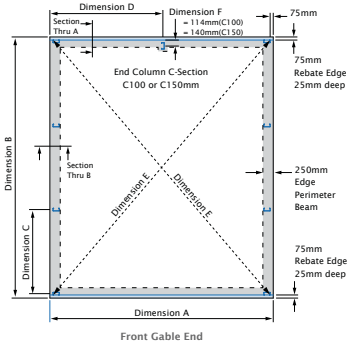
Gloves

String Line

1.0 SLAB DIMENSIONS

Determine the location of the concrete slab.

If the ground is uneven or sloped, ensure that the slope does not exceed more than 150mm.



EDGE PERIMETER BEAM PLAN VIEW

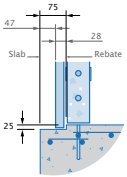
Figure 1.0

Figure 1 shows the orientation of the columns and the slab layout. Table 1 provides slab dimensions and column locations.

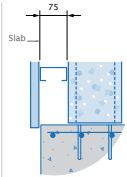
Mark out the slab dimensions as specified in Table 1 and check that the corner to corner measurements are equal.

The outside edge of your slab shall be 75mm from the outside face of the columns.

If a rebate is required, ensure the top of the rebate begins inline with the outside face of the columns, see Figure 1.1.



Section Thru A
GABLE END
25mm Deep Rebate



Section Thru B
GUTTER SIDE WALL
No Rebate

Figure 1.1

Table 1 - Slab Dimensions

Size	HOMESHED DETAILS	SLAB DIMENSIONS		COLUMN LOCATIONS		
	Width x Length (m)	A	B	C	D	E
G1	3.159 x 6.207	3.103	6.301	3.045	-	6.823
G2	3.159 x 7.731	3.103	7.825	2.537	-	8.223
G3	3.159 x 9.255	3.103	9.349	3.045	-	9.661
G4	3.921 x 6.207	3.865	6.301	3.045	-	7.186
G5	3.921 x 7.731	3.865	7.825	2.537	-	8.527
G6	3.921 x 9.255	3.865	9.349	3.045	-	9.921
G7	5.445 x 6.207	5.389	6.301	3.045	2.726	8.080
G8	5.445 x 7.731	5.389	7.825	2.537	2.726	9.293
G9	5.445 x 9.255	5.389	9.349	3.045	2.726	10.586
G10	5.445 x 12.303	5.389	12.397	3.045	2.726	13.319
G11	6.207 x 6.207	6.151	6.301	3.045	3.107	8.593
G12	6.207 x 7.731	6.151	7.825	2.537	3.107	9.743
G13	6.207 x 9.255	6.151	9.349	3.045	3.107	10.983
G14	6.207 x 12.303	6.151	12.397	3.045	3.107	13.638
G15	6.969 x 6.207	6.913	6.301	3.045	3.488	9.141
G16	6.969 x 7.731	6.913	7.825	2.537	3.488	10.230
G17	6.969 x 9.255	6.913	9.349	3.045	3.488	11.417
G18	6.969 x 12.303	6.913	12.397	3.045	3.488	13.990

2.0 CONCRETE SLAB PREPARATION

Concrete Edge Perimeter Beams

Homeshed slabs will require a concrete edge beam around the perimeter of the entire slab. The edge beam shall be 250mm in width in all cases with a depth as specified in Table 2. Refer to the corresponding notes for additional details including slab and edge beam reinforcing requirements.

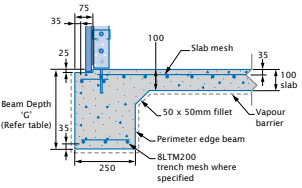
Figure 2.0 shows a typical section of an edge beam and slab.

Table 2 - Depth of Edge Perimeter Beam

Eaves Height (m)	Homeshed Width (m)	Depth of Edge Perimeter Beam ('G') (mm)		
		N1	N2	N3
2.4	3.159	200	200	300
	3.921	200	200	300
	5.445	200	200	300
	6.207	200	250	400
	6.969	300	300	500
2.7	3.159	200	200	300
	3.921	200	250	300
	5.445	200	250	300
	6.207	250	300	400
	6.969	300	300	n/a
3.0	3.159	200	300	300
	3.921	200	300	300
	5.445	200	300	350
	6.207	300	300	400
	6.969	300	300	n/a

Notes:

1. Width of edge perimeter beam = 250mm.
2. Slab mesh SL72 for beams less then 350mm deep, SL82 for beams 350mm or deeper.
3. 8LTM200 trench mesh to be used where beams are deeper than 350mm, or where required due to soil conditions (determined by others).
4. Cover to reinforcement = 35mm, top and bottom, and to slab edge.
5. Concrete Grade N20
6. Slabs suitable for Class A, S, M, M-D sites.



TYPICAL SECTION THROUGH EDGE PERIMETER BEAM

Figure 2.0

3.0 WALL FRAMES

Once the slab has set, mark out column locations (refer to Figure 1.0 & Table 1).

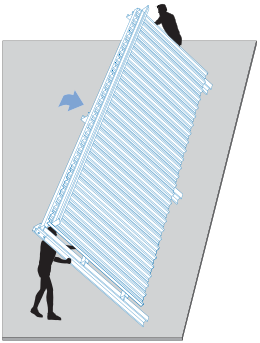
Complete the sections "Constructing the Walls", "Gutter Installation" and "Personal Access Door" from the "Framework" instructions. In addition, refer to the "4.0 Personal Access Door" section of these instructions if PA door/s are being installed.

Stand the completed wall frame in the positions marked (Figure 3.0) and temporarily brace.

Repeat for the opposite side wall. Do not remove bracing until columns are fixed to the concrete.

Important Note:

It may be necessary to pre-drill some or all of the concrete anchor holes before columns are braced in position. If columns interfere with the drill and do not allow clearance through stirrup holes, mark and pre-drill required holes to size and depth specified in the "5.0 Fixing to Slab" section of these instructions.



STANDING THE WALL

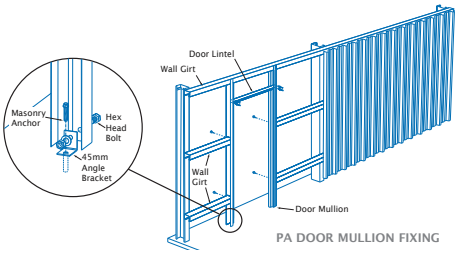
Figure 3.0

4.0 PERSONAL ACCESS DOOR

If your Gable Homeshed includes PA door/s, door mullions will need to be cut to sit flush with the top of the concrete slab.

Mullions are to be fixed to the slab using a 45mm angle bracket with an M10x20 hex head bolt and M6.0x40 masonry anchor as shown in Figure 4.

All other details are as specified in the "Framework" instructions.



PA DOOR MULLION FIXING

Figure 4

5.0 FIXING TO SLAB

Five bolted stirrup footing connections are available and depend on the eaves height, Homeshed width and wind classification. Follow the steps in sections "Building the Frame" and "Rear Wall and Roof Installation" in the "Framework" instructions and check wall alignment.

Refer to manufacturer's specifications for chemical capsule and injection fixing details and setting times.

Table 3 - Footing Type

Eaves Height (m)	Homeshed Width (m)	Stirrup Type		
		N1	N2	N3
2.4	3.159	A	A	D
	3.921	A	A	B
	5.445	A	A	D
	6.207	A	B	E (C15024)
	6.969	D	D	D
2.7	3.159	A	A	C
	3.921	A	B	D
	5.445	A	B	D
	6.207	B	D	B
	6.969	D	E (C15019)	Not Suitable
3.0	3.159	A	C	D
	3.921	A	D	D
	5.445	A	B	B
	6.207	D	D	D
	6.969	E (C15015)	D	Not Suitable

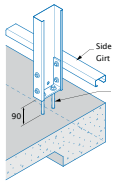
A	8mm stirrup with 2x M12 chemical capsule anchor studs at 90mm embedment.
B	8mm stirrup with 2x M12 threaded rods with chemical injection to set anchor studs at 200mm embedment.
C	8mm stirrup with 2x M16 threaded rods with chemical injection to set anchor studs at 250mm embedment.
D	8mm stirrup + angle bracket with 4x M16 threaded rods with chemical injection to set anchor studs at 250mm embedment.
E	8mm stirrup + angle bracket with 4x M16 threaded rods with chemical injection to set anchor studs at 250mm embedment & larger portal frame.
NOT SUITABLE	No suitable stirrup with selected frame member size.

Type A:

- 8mm Stirrup
- 2xM12 Chemical Capsule Anchors
- 90mm Embedment

Each stirrup is fixed to the column with four bolts and into the concrete slab with M12 chemical capsule anchor studs embedded a minimum of 90mm into the slab.

Drilled holes shall be 14mm diameter with chemical capsule required to set anchors.



TYPE A
Portal Column Section

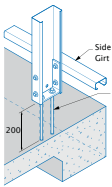
Figure 5.0

Type B:

- 8mm Stirrup
- 2xM12 Threaded Rod with Chemical Injection Anchors
- 200mm Embedment

Each stirrup is fixed to the column with four bolts and into the concrete perimeter beam with two M12 threaded rods with chemical injection to set anchors. Threaded rods will need to be cut to the required length before embedding into the concrete.

Embed the rod a minimum of 200mm into the slab.



TYPE B
Portal Column Section

Figure 5.1

Threaded rod holes drilled into concrete shall be 14mm diameter.

5.0 FIXING TO SLAB

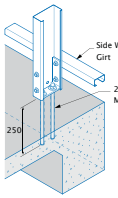
Type C:

- 8mm Stirrup
- 2xM16 Threaded Rod with Chemical Injection Anchors
- 250mm Embedment

Each stirrup is fixed to the column with four bolts and into the concrete perimeter beam with two M16 threaded rods with chemical injection to set anchors. Threaded rods will need to be cut to the required length before embedding into the concrete.

Embed the rod a minimum of 250mm into the slab.

Threaded rod holes drilled into concrete shall be 18mm diameter.

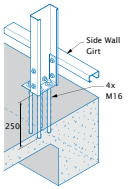


TYPE C
Portal Column Section

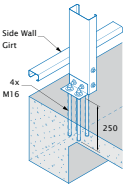
Figure 5.3

Concrete Slab Bolted Stirrup With Angle Connection:

For this application bolted stirrups are to be fixed with four M16 threaded rods with chemical injection, with anchors set at 250mm concrete embedment.



TYPE D & E
Portal Column Section (Front)



TYPE D & E
Portal Column Section (Back)

Figure 5.4

Type D:

- 8mm Stirrup
- Angle Bracket
- 250mm Embedment
- 4xM16 Threaded Rod with Chemical Injection Anchors

Each stirrup is fixed to the column with four bolts and into the concrete perimeter beam with four M16 threaded rods with chemical injection to set anchors. Threaded rods will need to be cut to the required length before embedding into the concrete.

Embed the rod a minimum of 250mm into the slab.

Threaded rod holes drilled into concrete shall be 18mm diameter.

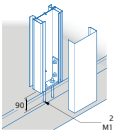
Type E:

- 8mm Stirrup
- Angle Bracket
- 4xM16 Threaded Rod with Chemical Injection Anchors
- 250mm Embedment
- Larger Portal Frame Section

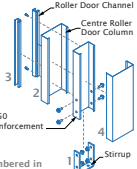
Each stirrup is fixed to the column with four bolts and into the concrete perimeter beam with four M16 threaded rods with chemical injection to set anchors. Threaded rods will need to be cut to the required length before embedding into the concrete.
Embed the rod a minimum of 250mm into the slab.
Threaded rod holes drilled into concrete shall be 18mm diameter.

Centre Roller Door Column Connection:

For Type 2 Gable Homesheds the centre roller door column stirrup is to be fixed with two M12 chemical capsule anchors at 90mm concrete embedment.



CENTRE ROLLER DOOR COLUMN

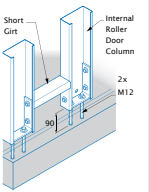


Numbered in order of assembly.

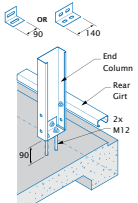
Figure 5.5

End Column & Internal Roller Door Column Connection:

The angle connector is fixed to the column with two bolts and into the concrete slab with two M12 chemical capsule anchors embedded a minimum of 90mm into the slab. Drilled holes shall be 14mm diameter with chemical injection required to set anchors. Depending on the end column provided, C100 end columns require an angle connector with length 90mm. C150 end columns require an angle connector with length 140mm. For internal roller door columns, secure to slab using the Type A stirrup system previously detailed.



INTERNAL ROLLER DOOR COLUMN
Type A fixing



END COLUMN
Gable End of Homeshed

Figure 5.6

6.0 SIDE WALL BRACING

All Homesheds being secured to a concrete slab will require side wall bracing. The size and quantity of bracing required is indicated in Table 4 which is to be read in conjunction with the notes below.

Bracing is to be located in individual side bays, directly behind wall girts and screwed to portal frame columns. All side wall bracing is to be tensioned.

Table 4 - Side Wall Bracing

Eaves Height (m)	Homeshed Width (m)	Side Wall Bracing		
		N1	N2	N3
2.4	3.159	1 x 30x1.0	2 x 30x8.0	2 x 32x1.2
	3.921	2 x 30x0.8	2 x 30x1.0	3 x 30x1.0
	5.445	2 x 30x1.0	3 x 30x1.0	4 x 30x1.0
	6.207	2 x 32x1.2	3 x 30x1.0	4 x 32x1.2
	6.969	2 x 32x1.2	3 x 32x1.2	5 x 32x1.2
2.7	3.159	1 x 32x1.2	2 x 30x1.0	3 x 30x1.0
	3.921	2 x 30x0.8	2 x 32x1.2	3 x 32x1.2
	5.445	2 x 32x1.2	3 x 30x1.0	4 x 32x1.2
	6.207	3 x 30x1.0	3 x 32x1.2	5 x 32x1.2
	6.969	3 x 30x1.0	4 x 30x1.0	N/A
3.0	3.159	2 x 30x0.8	2 x 30x1.0	3 x 30x1.0
	3.921	2 x 30x1.0	2 x 32x1.2	4 x 30x1.0
	5.445	3 x 30x1.0	3 x 32x1.2	5 x 32x1.2
	6.207	3 x 30x1.0	4 x 30x1.0	6 x 32x1.2
	6.969	3 x 32x1.2	4 x 32x1.2	N/A

Notes:

1. 2 x 30x1.0 indicates 2 cross braces from 30x1.0mm (i.e 4 lengths of straps). All braces G300 steel.
2. Braces may be distributed over one or both sides of the shed.
   E.g. where 4 braces are required 3 may be on one side and one on the other.
3. All braces to be fixed with two 14-10 self drilling screws at each end.
4. Braces may be doubled in the same bay to provide the correct number of braces e.g:

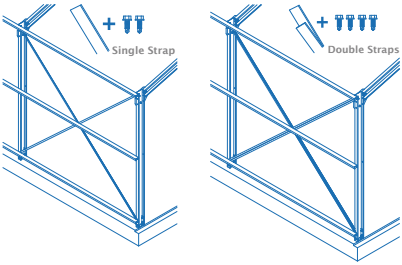


Figure 6.0

MAINTENANCE

Your Stratco Homeshed will maintain its good looks for even longer with a simple wash and wipe down with a soft broom. Stratco Homesheds are produced from the highest quality materials and will provide many years of service if the important recommendations set out in the Stratco 'Selection, Use and Maintenance' brochure are followed.

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