INSTALLATION GUIDE

Flat Roof Homesheds TM Onto Concrete

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BEFORE YOU START

It is important to check your Local Government Authority requirements before the installation of your new Stratco Flat Roof Homeshed. Read these instructions thoroughly before starting your project and refer to them constantly during each stage of construction. Contact Stratco for advice if you do not have the necessary tools or information.

Before starting, lay out the main components on the ground in order of assembly and check them against the delivery note. The 'Components' section identifies each part of your Flat Roof Homeshed.

Ensure there is reasonable access for materials and working space, ensure the shed site is level and consider the disposal of run-off water.

TOOLS REQUIRED

All tools are available from your local Stratco Home Improvement Store.





Spirit Level



Tin Snips



Silicone Gun & Silicone

COMPONENTS





STEP ONE

Determine the location of the concrete slab. If the ground is uneven or sloped, ensure that the slope does not exceed more than 150mm. Footing layout and table supplied shows the positioning of the posts/mullions and the slab. Mark out the slab dimensions as specified and check that the corner to corner measurments are equal. The outside edge of your slab shall be no less than 40mm from the outside face of wall sheets.

FOOTING LAYOUT

CODE	DESCRIPTION	A	В	с	D	E	F	G	н	I	J
UNI SD	Universal	5960mm	3460mm	1730mm	-	1900mm	2160mm	6892mm	-	-	-
UNI EX	Universal with Handiman Extension	7910mm	3460mm	1730mm	-	2500mm	2910mm	8634mm	-	-	-
SMA SD	Spacemaster	5960mm	4110mm	2055mm	-	1900mm	2160mm	7240mm	603mm	603mm	-
SMA EX	Spacemaster with Handiman Extension	7910mm	4110mm	2055mm	-	2500mm	2910mm	8914mm	603mm	603mm	-
WSH SD	Workshop	5960mm	4764mm	2382mm	-	1900mm	2160mm	7630mm	-	1407mm	-
WSH EX	Workshop with Handiman Extension	7910mm	4764mm	2382mm	-	2500mm	2910mm	9234mm	-	1407mm	-
DUO SD	Duo	5960mm	5415mm	2707mm	2707mm	1900mm	2160mm	8053mm	-	-	-
DUO EX	Duo with Handiman Extension	7910mm	5415mm	2707mm	2707mm	2500mm	2910mm	9586mm	-	-	-
ARO SD	All Rounder	5960mm	6015mm	3007mm	3007mm	1900mm	2160mm	8468mm	-	-	-
ARO EX	All Rounder with Handiman Extension	7910mm	6015mm	3007mm	3007mm	2500mm	2910mm	9937mm	-	-	-
LKI SD	Leisure King	5960mm	6715mm		3357mm	1900mm	2160mm	8978mm	-	-	2238mm
LKI EX	Leisure King with Handiman Extension	7910mm	6715mm	-	3357mm	2500mm	2910mm	10376mm	-	-	2238mm

25mm = mullion bracket centres



STEP TWO

Homeshed slabs require a concrete edge beam around the perimeter of the entire slab. The edge beam shall be 250mm in width in all cases, with depth as specified in the table below. Refer to corresponding notes for additional details including slab and edge beam reinforcing requirements. Footing beams to be founded on firm natural soil.

FOOTING DETAIL

CODE	DESCRIPTION	BEAM DEPTH 'G'					
CODE	DESCRIPTION	N1	N2	N3			
UNI SD	Universal	200mm	200mm	300mm			
UNI EX	Universal with Handiman Extension	200mm	200mm	300mm			
SMA SD	Spacemaster	200mm	250mm	300mm			
SMA EX	Spacemaster with Handiman Extension	200mm	250mm	300mm			
WSH SD	Workshop	200mm	250mm	300mm			
WSH EX	Workshop with Handiman Extension	200mm	250mm	300mm			
DUO SD	Duo	200mm	250mm	n/a			
DUO EX	Duo with Handiman Extension	250mm	250mm	n/a			
ARO SD	All Rounder	250mm	300mm	n/a			
ARO EX	All Rounder with Handiman Extension	250mm	300mm	n/a			
LKI SD	Leisure King	300mm	300mm	n/a			
LKI EX	Leisure King with Handiman Extension	300mm	300mm	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, bottom and to slab edge.

5. Concrete Grade N20

6. Slabs suitable for Class A, S, M, M-D sites.



Footing Detail



TABLE 1

CODE	UNI SD	UNI EX	SMA SD	SMA EX	WSH SD	WSH EX	DUO SD	DUO EX	ARO SD	ARO EX	LKI SD	LKI EX
А	1900mm	2500mm										
В	2160mm	2910mm										
С	5960mm	7910mm										

STEP FOUR

Insert footing into 75x75x2.5mm SHS. The gap between the bottom of the SHS and the top of the base plate should not exceed 10mm (Figure 1).



Predrill pilot holes through the SHS and into the footing spigot 25mm from the bottom and at a maximum 50mm centres (Figure 2). Fix the SHS to the footing plate with 14x25 self drilling screws. Repeat for other post. Screw locations vary between corner and intermediate footings refer Figure 2.



STEP FIVE

Using two 14x25 self drilling screws attach the long leg of the Z-rail to the corner post and footing. Secure one screw first and the second after bracing the frame square. The bottom of the Z-rail must be in line with the bottom of the base plate and the end of the Z-rail overhanging the post 55mm (Figure 3).



Depending on your Homeshed type, you may need to secure a mullion to the end of the frame. With one 14x25 self drilling screw attach the mullion to the Z-rail. The bottom of the mullion must be inline with the bottom of the short leg of the Z-rail. Secure the mullion footing to the mullion with two M12x25 bolts (Figure 5).



Repeat for intermediate posts, refer to Panel Layout and Table 1 for post locations (Figure 7).

Repeat for intermediate posts. Refer to Panel Layout and Table 1 for post locations (Figure 4).



Figure 4

Using two 14x25 self drilling screws attach the long leg of the top channel to the corner post (Figure 6). Secure one screw first and the second after bracing the frame square. The distance from the top channel to the Z-rail is 10mm longer than the wall sheets (refer Figure 9).



Depending on your Homeshed type you may need to secure a mullion to the end of the frame. With one 14x25 self drilling screw attach the mullion to the top channel (Figure 8).







Once all the panel components are connected, measure the diagonals to ensure the frame is square (Figure 9). Secure the frame with 30x0.8mm bracing, refer to the bracing section of this instruction manual. Cut bracing to length and fix at each end with two 14x25 self drilling screws (10.1)

Ensure screws are minimum 20mm away from the end of the bracing. After securing all the bracing fix the remaining 14x25 self drilling screws securing the Z-rail and top channel to the posts (10.2).

Layout the second side panel and repeat Steps Four and Five.



STEP SIX

Carefully lift up one panel and secure with temporary supports. Repeat this operation for the opposite panel. At the rear of the shed place a 55mm channel at the top of the corner posts, ensure it is in line with adjacent 55mm channel and the long leg is against the post. Fasten with 14x25 self drilling screws (11.1). Place another 55mm channel on top of the mullions (or corner posts) at the front of the shed with the long leg inward and fasten with 14x25 self drilling screws (11.2). Place a Z-rail at the rear of the shed, ensure

it is in line with adjacent Z-rail and the long leg is against the post. Fasten with 14x25 self drilling screws (11.3). Lift a C-section rafter into place and temporarily support while ensuring the top is at least 30mm higher than the top of the 55mm channel (11.4). This provides the correct height for the slope of the roof sheets. Fix the C-section rafter to each SHS using two M12x100 bolts at 70mm centres with the first bolt 20mm from the top of the SHS, ensure two washers are used (11.5). Repeat for other C-section rafter.



STEP SEVEN

Depending on which Homeshed you have purchased, one or two 75x75x2.5mm SHS will need to be installed in the rear wall. Refer to Table 2 and Figure 12 for measurements.

TABLE 2

CODE	DESCRIPTION	А	В
UNI SD	Universal	1675mm	n/a
UNI EX	Universal with Handiman Extension	1675mm	n/a
SMA SD	Spacemaster	2000mm	n/a
SMA EX	Spacemaster with Handiman Extension	2000mm	n/a
WSH SD	Workshop	2327mm	n/a
WSH EX	Workshop with Handiman Extension	2327mm	n/a
DUO SD	Duo	2652mm	n/a
DUO EX	Duo with Handiman Extension	2652mm	n/a
ARO SD	All Rounder	2952mm	n/a
ARO EX	All Rounder with Handiman Extension	2952mm	n/a
LKI SD	Leisure King	n/a	2183mm
LKI EX	Leisure King with Handiman Extension	n/a	2183mm

Using four 14x25 self drilling screws fasten the 75x75x2.5mm SHS to the top 55mm channel and bottom Z-rail (Figure 13 & 14).



Figure 12





STEP EIGHT

Depending on which Homeshed you have purchased, additional mullions may need to be installed to support the roller door/s. Refer to the Table 3 and Figure 16 for measurements. Fasten the mullion/s to the inward facing long leg of the top 55mm channel with two 10x16 self drilling screws (Figure 15).

TABLE 3

CODE	DESCRIPTION	Α	В	с
UNI SD	Universal	n/a	n/a	n/a
UNI EX	Universal with Handiman Extension	n/a	n/a	n/a
SMA SD	Spacemaster	n/a	500mm	500mm
SMA EX	X Spacemaster with Handiman Extension		500mm	500mm
WSH SD	Workshop	n/a	1304mm	n/a
WSH EX	Workshop with Handiman Extension	n/a	1304mm	n/a
DUO SD	Duo	2400mm	n/a	n/a
DUO EX	Duo with Handiman Extension	2400mm	n/a	n/a
ARO SD	All Rounder	2700mm	n/a	n/a
ARO EX	All Rounder with Handiman Extension	2700mm	n/a	n/a
LKI SD	Leisure King	3050mm	n/a	n/a
LKI EX	Leisure King with Handiman Extension	3050mm	n/a	n/a



For Homesheds requiring mullions in the B and C positions (Figure 16) additional components are supplied. Install the 55mm channel using 10x16 self drilling screws at maximum 600mm centres starting 100mm from each end (Figure 17).

With two 14x25 self drilling screws fasten the bottom Z-rail to the corner post and using one 10x16 self drilling screw secure the Z-rail inside the 55mm channel with the long leg inward (Figure 18).





STEP NINE

Refer to Table 4 and Figure 20 for details on required bridging members. Temporarily support the bridging sections in the required positions. Each bridging section is attached using four M10x25 bolts. Ensure a washer is used on the bolt side and the nut side (Figure 19).







STEP TEN

Ensure all connections and members are square and level. Once you are satisfied proceed to fix bracing as required (refer to the bracing section at the rear of this installation guide).

Once all the bracing is in place proceed to fix footings to concrete slab. Each footing is fixed with minimum M12 masonry anchors with minimum 90mm embedment into concrete slab.



STEP ELEVEN

Before installing any of the mullion flashings refer to the roller door instruction manual. Roller door brackets require installation before completing Step Eleven. Install the mullion flashings to the mullions, ensuring the flashing is flush against the 55mm top channel (Figure 22 & 23).



For Homesheds with mullions in the B and C positions (Figure 16) install wall sheets adjacent mullions before fixing the mullion flashings. Rivet the flashing to the mullion/s 100mm from the top and bottom and mid-height, both sides (Figure 24 & 25).



STEP TWELVE

Using three rivets, install the infill bracket to the mullion (Figure 26). Repeat for all infill brackets as per shed requirements. Place the infill flashing between the mullions to determine if any trimming is necessary, if so use tin snips to evenly trim both ends of the flashing (Figure 27). Use eight rivets to secure the infill flashing in position. Using three rivets secure each end to the infill brackets, then evenly space the remaining two rivets fixing to the 55mm top channel (Figure 28).





STEP THIRTEEN

Locate the P.A. door position. The example provided is for a left hand hung door, $1\frac{1}{2}$ sheets from the corner post (Figure 29). The space for the P.A. door can be created by half lapping one sheet over another full sheet. To eliminate cutting sheets it is recommended you temporarily locate both jambs in their approximate positions.



Lay the wall sheets on the ground lining up all sheets with the intended position of the P.A. door. Proceed to install the wall sheets from the corner post working toward the door jamb (Figure 30). Refer sheet fixing detail (Figure 73).



Figure 29

Secure sheets with one rivet per crest at the top, two rivets per pan at the base and one rivet mid-span at the sheet lap (Figure 32). Remeasure the door jambs and adjust if necessary (Figure 29). Install the remaining wall sheets working from the other corner post toward the door jamb (Figure 31). Half lapping one sheet over another full sheet (Figure 73). Secure sheets with one rivet per crest at the top, two rivets per pan at the base and one rivet mid-span at the sheet lap (Figure 33).



STEP FOURTEEN

Remeasure the door jambs and adjust if necessary (Figure 29). Install the door jamb from which the door will be hung, using a 10x16 self drilling screw attached to the top channel and a rivet attached to the bottom Z-rail (Figure 34). Position the remaining door jamb and check the Z-section door stop and infill will fit (Figure 35).



With both door jambs installed attach the Z-section door stop and infill using eight rivets (Figure 36). You may find it easier to attach the Z-section door stop to the infill first then attach to the door jambs and top channel. Position the door so there is even space at the top and bottom.

Long leg at rear

Figure 36

Check opening measurements against the P.A. door to ensure there is enough room to open and close the door. Install the remaining door jamb using a 10x16 screw attached to the top channel and a rivet attached to the bottom Z-rail (Figure 34).



Fix the P.A. door to the jamb using four 10x16 wafer head screws per hinge (Figure 37). Close the door and check it opens and closes without interference.



STEP FIFTEEN

Start the installation of the remaining wall sheets from a corner post and work toward the other post. Before fixing wall sheets trial layout the sheets in the panel to ensure last sheet fits correctly into the corner. Correct spacing of the wall sheet is best achieved by marking top and bottom tracks and fixing the sheets to these marks. Secure sheets with one rivet per crest at the top, two rivets

per pan at the base and one rivet mid-span at the sheet lap. Refer to sheet fixing details (Figure 73). Ensure all wall sheets are secured with rivets into corner channels and door jambs top, bottom and mid-height. Optional dust proofing foam can be installed after wall sheets are fixed.



STEP SIXTEEN

Position the corner post flashing ensuring the bottom edge is sitting on top of the bottom Z-rail (Figure 39). Trim the top of the corner post flashing as required (Figure 40). Secure flashing with rivets at maximum 500mm centres starting 20mm from each end. (Figure 41). Repeat for corners as required.



Figure 39





STEP SEVENTEEN

Note: If you have purchased the gutter option, refer to the Gutter Installation step before completing Step Seventeen. The roof sheets pans must be turned down at each end 45° to the horizontal (Figure 42) before they are installed. Optional dust proofing foam can be placed between Prodek and top 55mm channel (Figure 43). Place the Prodek roof sheets on the C-section rafter. Start laying the sheets from the outside edge of the top channel on the long side. Installing one sheet at a time, ensuring sheet overhang is even at each end. Fix using one 10x16 screw per pan into C-section rafter and top channels (Figure 44). Refer sheet fixing details (Figure 73). If translucent sheeting is used, ensure at least one steel sheet is secured each side. Do not walk on translucent sheeting.



STEP EIGHTEEN

Note: If you have purchased the gutter option, refer to the Gutter Installation section of the instructions before completing Step Eighteen. Make a mark mid-span on the top of the first crest of the roof and position the barge flashing so the end is minimum 5mm past the mark. Fix with two 10x16 screws. Position the other barge flashing so the ends overlap by minimum 10mm. Fix two more 10x16 screws into top channel. Fix one 10x16 screw mid-span so that it penetrates both barge flashings and the top channel. Fix one 10x16 screw mid-span so that it penetrates both barge flashings and the first crest of the roof sheet. Fix two 10x16 screws at either end again penetrating the crest of the roof sheet (Figure 45). Repeat the procedure for the opposite side of the Homeshed.



GUTTER INSTALLATION

Gutter components are detailed in the list below. First prepare each of the gutters ready for installation. Select the location of the downpipe and install the downpipe outlet into one of the gutters. Place the outlet up against the back of the gutter approximately 40mm from the end and trace around the outlet. Cut out the appropriate sized hole to ensure the outlet fits snugly. Attach the downpipe outlet and stop ends with rivets (Figure 47).



Using tin snips make a pair of cuts on the back lip of the gutter 20mm apart, 150mm from the end of the gutter. Bend the tab back over itself (Figure 49). Repeat for the other end and create more tabs evenly space with a maximum spacing of 1200mm (Figure 50).



Figure 49

After Step Seventeen has been completed, install the gutter brackets. Place the first bracket under the lip of the gutter with the flat end of the bracket in the middle of the second pan in from the edge on the first roof sheet. Bend the bracket to match the angle. Place a small amount of silicone on the underside of the bracket and attach the bracket with a rivet (Figure 51).



Figure 51

Seal around the edge of the downpipe outlet and stop ends with silicone (Figure 48).



Using the tabs created, attach the gutter to top rail with rivets (Figure 50). Repeat for opposite gutter. Return to Step Seventeen.



Repeat for remaining brackets, riveting one bracket in every fourth pan (Figure 52). Place a small amount of silicone on the top of each rivet to seal. After both gutters are attached return to Step Eighteen.



DOWNPIPE INSTALLATION

Cut the downpipes to the required length, allowing room for any downpipe shoes or other optional fittings. Place the downpipe over the downpipe outlet and attach with two rivets through both sides of the downpipe (Figure 53). Seal with silicone.



Place the downpipe bracket as close to the ground as possible. Fix the downpipe in place using the downpipe bracket and rivets (Figure 54). Seal with silicone.



ROLLER DOOR

Refer to manufacturers specifications and installation instructions.

DOUBLE PA DOOR OPTION

If you have chosen the double P.A. door option for your Homeshed there will be one less wall sheet and the Z-section door stop and infill will measure 1545mm. Included with the extra P.A. door is a seam flashing. Locate the position for the P.A. doors, the example provided is for a double door hung one sheet from left post (Figure 55). The space for the P.A. door can be created by half lapping one sheet over another full sheet. To eliminate cutting sheets it is recommended you temporarily locate both jambs in their approximate positions.



Lay the wall sheets on the ground lining up all sheets with the intended position of the P.A. doors. Proceed to install the wall sheets from the corner post working toward the first door jamb (Figure 56). Refer lapping detail (Figure 73). Secure sheets with one rivet per crest at the top, two rivets per pan at the base and one rivet mid-span at the join between sheets (Figure 33). Repeat procedure working back from opposite corner post, you may need to stretch sheets slightly to fit.



Remeasure the door jambs and adjust if necessary (Figure 55). Install the door jamb from which the door will be hung, using a 10x16 self drilling screw attached to the top channel and a rivet attached to bottom Z-rail (Figure 34). Position the remaining door jamb and check the Z-section door stop and infill will fit (Figure 57). Check measurements against P.A. doors to ensure there is



Before fixing the P.A. door to the jamb decide which of the two doors will open first, the handle will attach to this door. Attach the seam flashing to the other door using four 10x16 screws with a recommended 20mm overhang (Figure 59). Position the door against the jamb so there is even space both top and bottom.

enough room to open and close the doors. Install remaining door jamb using a 10x16 screw attached to the top channel and a rivet attached to the bottom Z-rail (Figure 34). With both door jambs installed attach the Z-section door stop and infill using ten rivets (Figure 58). You may find it easier to attach the Z-section door stop to the infill first then attach to door jambs and top channel.



Fix to the jamb using four 10x16 wafer head screws per hinge (Figure 37). Close the door and check it opens and closes without interference. Position the second door and fix to the jamb using four 10x16 wafer head screws per hinge (Figure 60).





LOUVRED WINDOW OPTION

If you have chosen the louvred window option for your Homeshed, one of the wall sheets will need to be trimmed to suit with tin snips. The example provide is for a window one sheet from the corner post on the short side of the shed 500mm from top channel.



Ensure the wall sheets either side of the window tightly abutt the frame so no gaps occur. Correct spacing of the sheet is best achieved by marking the sheet location on the top and bottom tracks and fixing the sheets to these marks. Fix the remaining sheets working back from the corner post (Figure 62). Fix one full length wall sheet against the corner post. Then fix the larger trimmed sheet (Figure 61) as previously described (Figure 73). Place the remaining trimmed sheet loosely into position and check to see that the window will fit the opening (Figure 62).



Place the pre-assembled louvred window and remaining trimmed sheet into the opening. Check for squareness. Install with rivets securing the window frame to the crests of the wall sheets and evenly spaced around the remaining frame (Figure 64). Place a bead of silicone in each corner of the window to prevent water entry.





Figure 62

SLIDING WINDOW OPTION

If you have chosen the sliding window option for your Homeshed, two of the wall sheets will need to be trimmed to suit with tin snips. The example provided is for a window one sheet from the corner post on the short side of the shed 500mm from the top channel (Figure 65). Fix one full length wall sheet against the corner post. Fix the two larger trimmed sheets next, as per previously used overlapping and fixing details (Figure 73).



Figure 65

Place the pre-assembled sliding window and remaining trimmed sheets into the opening and check for squareness. Install with rivets securing the window frame to the crests of the wall sheet top and bottom and evenly space rivets either side (Figure 67). Place a bead of silicone in each corner of the window to prevent water entry.



Place the remaining sheets loosely into position and check to see that the window will fit the opening (Figure 66). Ensure the wall sheets either side of the window tightly abutt the frame so no gaps occur. Correct spacing of the sheets is best achieved by marking the location of the sheets on the top and bottom tracks and fixing the sheets to these marks. Fix the remaining sheets working back from the corner post (Figure 66).



Figure 66

Locate one 38x25mm RHS directly under the window frame spanning between shed posts. Secure in position with one 10x16 screw per wall sheet pan from the outside of the shed (Figure 68). This will provide additional stiffness to the sliding window wall panel.



WALL AND ROOF BRACING

The following information is applicable for all types of Flat Roof Homesheds on concrete. Door and window configurations must be considered in conjunction with the bracing instructions on the following page before installation.

- At least one end bay must be fully braced, i.e. roof and both sides.
- Roof bracing secured to the top of roof beams and channels, located as shown below.
- At least one end wall must be fully braced, P.A. doors and windows shall not be installed opposite standard roller door locations.
- All wall bracing is set diagonally from one bay corner to the opposite corner within the same bay.
- Bracing is to be installed as tightly as possible and fixed with two 14x25 self drilling screws at each end, at a minimum distance of 20mm from the end of the brace.



Before bracing the side walls determine the location of the PA door and/or window. If your Flat Roof Homeshed does not include roller doors you may place a PA door and window/s in the front wall. It is

> PREFERED SIDE WALL BRACING



Figure 71

preferred the end bays are fully braced with the PA door located in the middle bay (Figure 71). If the PA is located in an end bay ensure the two remaining side bays are braced (Figure 72).

> ALTERNATE SIDE WALL BRACING



FIXING DETAIL



MAINTENANCE

Your Stratco Flat Roof Homeshed will maintain its good looks for even longer with a simple wash and wipe down. Cleaning should be performed as often as is required to remove any dirt, salt and pollutants.

Stratco Homesheds are produced from the highest quality materials and will provide many years of service, refer to the 'Selection Use and Maintenance' brochure for more information on how to get the best out of your product.

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