

Modular Garden Rooms Basic Construction Techniques for SIP Structures



modular
garden rooms



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Preparation & Advice



Before Starting:

There will be a customer instructions booklet provided alongside your kit that acts as a construction guide. Please familiarise all contractors with the technical notes in the SIPs construction manual as well as this document.

Advice should be sought out if the building is in a high wind area and the screw frequency increased if required.

Preparing your base:

Ensure that the base area is flat and free from debris. (Place a weed suppressor down if required).

Any foundations should be level and substantial enough for the intended use of the building.

What to do when you receive your kit:

Store panels in a dry place. (Moisture can make fitting more difficult).

Identify all panels after you have stored your kit.

Some panels are assembled with joining slips for transit and identification. It is good practice to remove them, apply adhesive and fixings, then refit.

General SIP building advice:

The building design and materials have been calculated and tested. It is the responsibility of the project manager and installer to ensure correct methods are followed for construction.

Appropriate health and safety procedures should be followed when lifting and fixing panels.

Bracing should be used until walls are joined completely.

Props should be used when constructing the roof.

Panels should be screwed and glued with appropriate adhesive for strength and airtightness.

Check the fitting of each panel before gluing.

Check the squareness of corners.

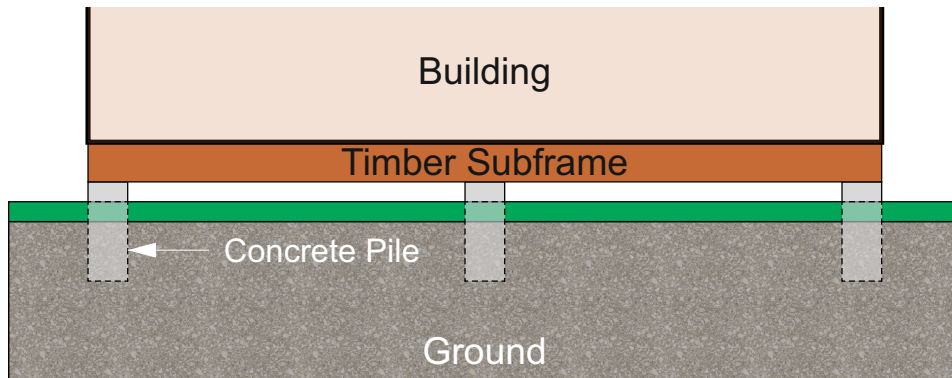
Treated timbers should be end treated if cut. (Particularly if they are likely to be exposed to moisture).



Foundation Options

Neither timber subframes or foundations are supplied by Modular Group.

Handouts detailing each of the foundations listed below are available upon request.

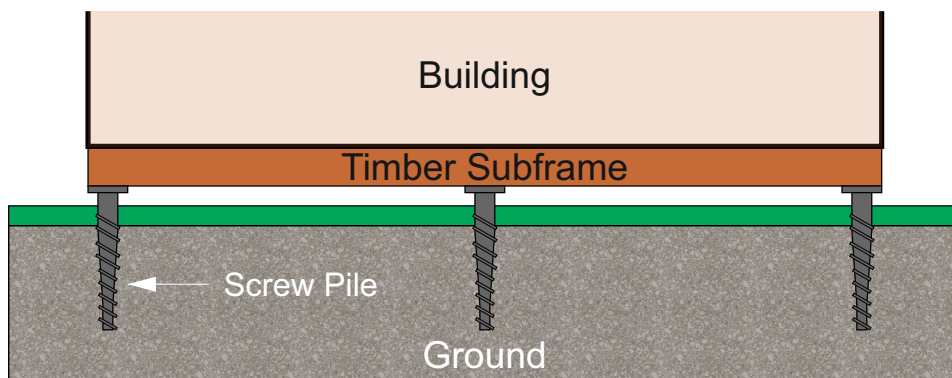


Concrete Pile Example

Concrete Piles:

The piles will be put into the ground at spacings of approx. 1200mm centres.

Timber or steel bases can be sited on the piles.

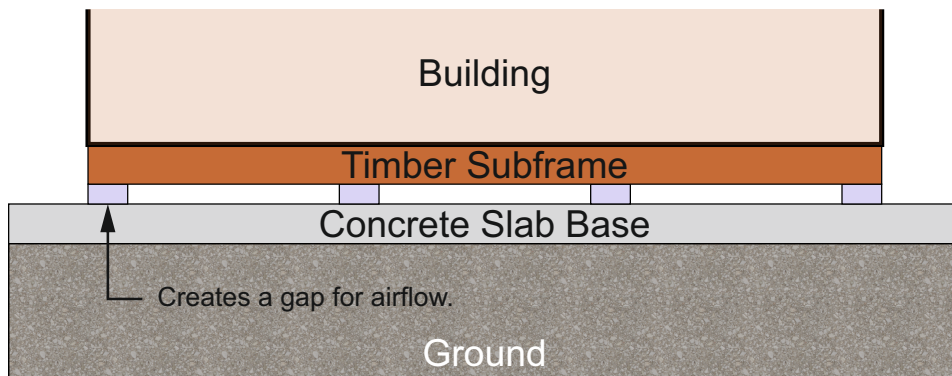


Ground Screw Piles Example

Ground Screw Piles:

Screw piles are screwed into the ground at approx. 1200mm centres.

Timber or steel bases can be sited on the piles.



Concrete Slab Example

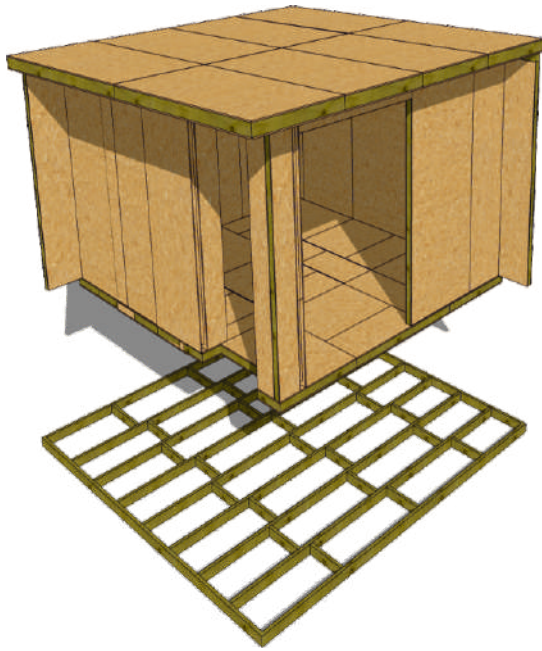
Concrete Slabs:

The concrete slab base is first built on site to create a level foundation for the timber subframe to be sited on.

A timber subframe should be raised from the slab to create a gap for airflow under the building. Concrete blocks or timbers can be used to do this.

The spacings should match up with the joints on the timber subframe.

Timber Subframe & SIP Floor Construction



Timber Subframe

Subframes and foundations are not provided with the kits and so should be prepared in advance. Examples can be found on **page 3**.

The timber subframe base should have timbers spaced at 600mm centres and it should be sited on a proper foundation. Joists should be staggered and fixed evenly between the timbers.

The floor SIPs are screwed in either a timber subframe or in bearers to secure the SIP floor structure into the foundations.



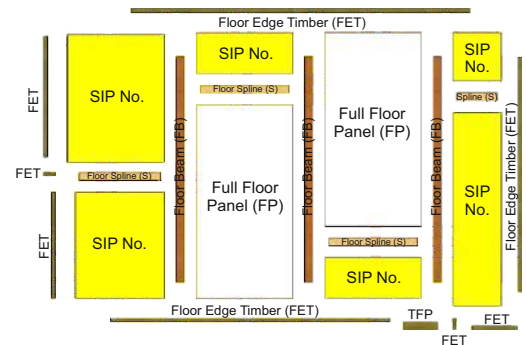
Photo: Example of a timber subframe with a SIP Floor Panel being installed.

SIP Floor Construction

Floor SIPs: The floor is made of SIPs connected by timbers and splines.

Floor Beams (FB): Timber is provided to place between the SIP floor. They go in the rebate created when two SIPs meet and all run the same direction. They will usually run the full length of your building. The placement of these beams for SIP kits are provided in your customer instructions.

Floor Splines (S): There will be SIP splines provided to place within your SIP floor in a similar manner to the *floor beams*. They go inside the SIP rebates where panels meet, running perpendicular to the *floor beams*.



Floor Edge Timber (FET): This is timber that fills the floor's perimeter SIP rebate. They are attached once the rest of the floor has been fitted together.

Timber Floor Packers (TFP): They are used to extend SIP floors small distances. They are typically as tall as the floor SIP to create a floor that is level.

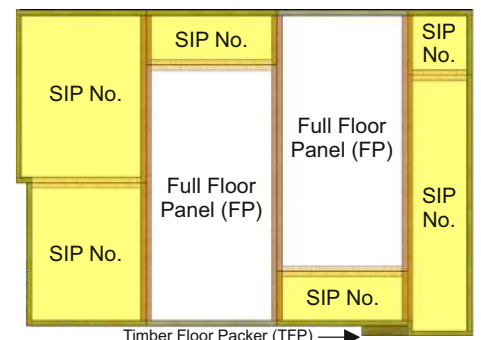


Connecting your floor:

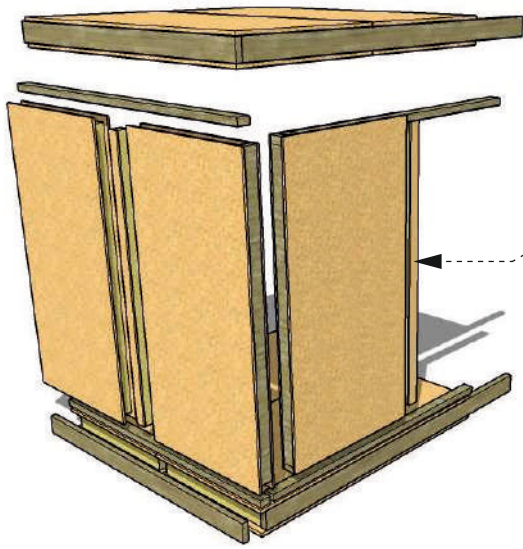
The SIPs are joint together by screwing adjacent SIPs to their *floor beams* and *splines*.

When this has been done the *floor edge timber* is screwed into the perimeter of floor.

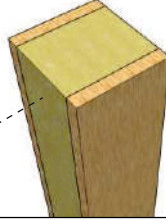
Finally, any *timber floor packers* are attached to their relevant locations. They are screwed into the *floor edge timber*.



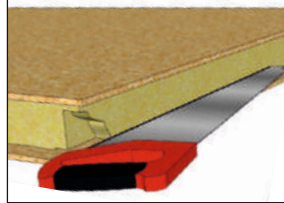
Basic SIPs Construction



SIP Spline



SIP Rebate



Basic SIP Construction Rules:

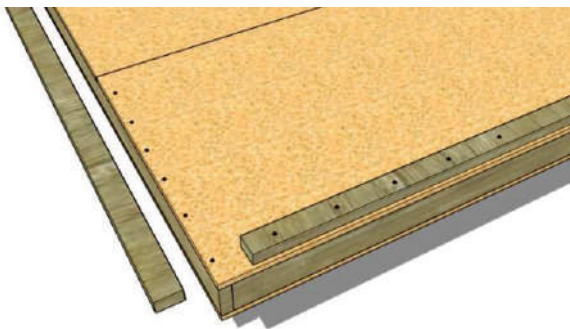
Structurally Insulated Panels (SIPs) should be placed flush to one another wherever possible. Their connection to one another is made secure through the joining of timbers or splines placed within the SIP rebates that are screwed into the OSB of the SIPs.

Splines:

The splines sit within the SIP rebate and connect panels together. These may be SIP splines or made from timber/steel.

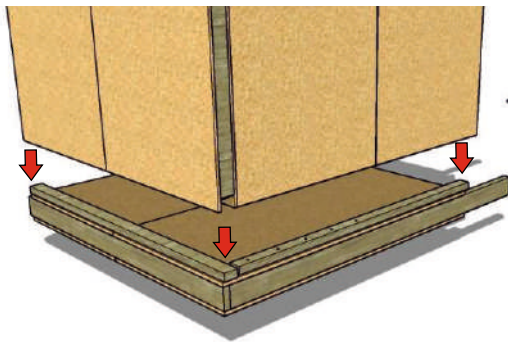
SIP Rebate:

Typically it is a 2-inch gap in foam at the edge of a SIP. Further information on creating a SIP rebate can be found in our FAQ.



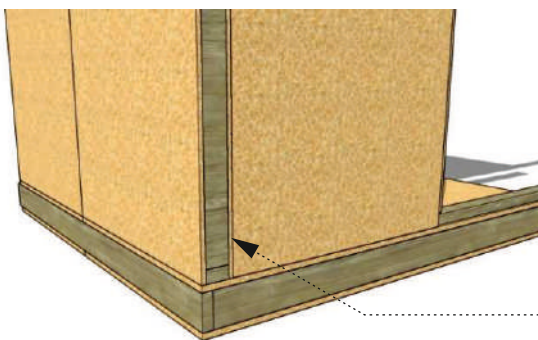
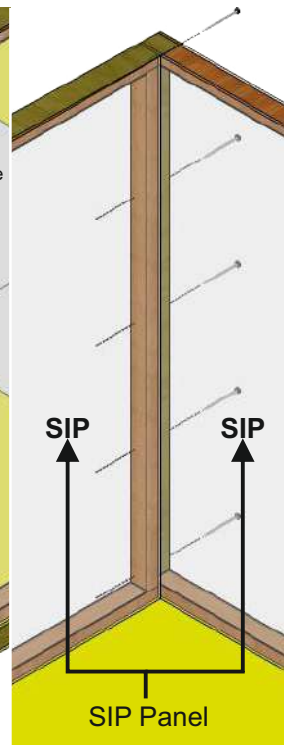
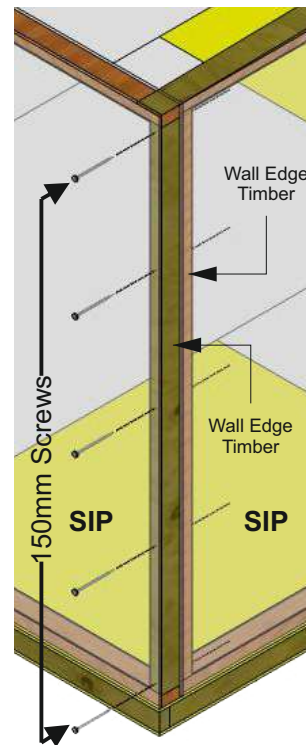
Sole Plate:

These go beneath the walls and can be used as guides for your build. They should be screwed into the floor before the walls begin to go up so that you can confirm the arrangement is correct to your plan.



Starting your walls:

An initial corner should be created to improve stability whilst building up the walls. Choose a corner **based on these rules**.



Corner Connection

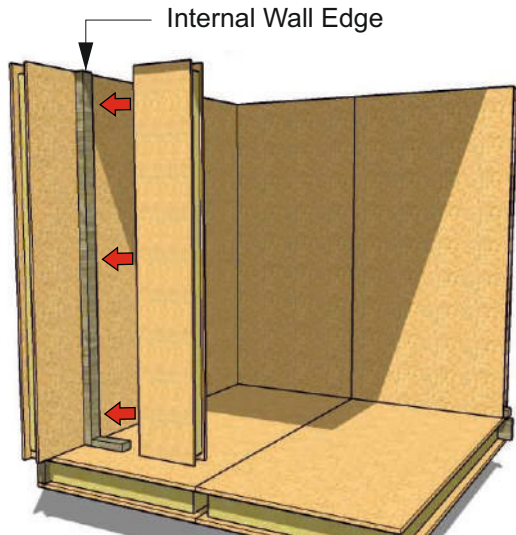


Edge Timbers:

They are timbers that finish the ends of each SIP wall. They sit on top of the sole plates and **are attached like so**. They should be shorter than the full height of the SIP wall to allow room for *top timbers* or *window/door bars* to be attached on top of them where required.

When connecting SIP walls at corners or internal wall sections, the screws should go through into the edge timber every 200 - 300mm to ensure that the wall section is secured.

SIP Connection Construction



Construction Notes:

Remember to check squareness when securing each panel. Use a couple of screws first, check if square, then continue with fixing.

Start at one corner for stability then connect each subsequent SIP, potentially meeting at a door or window depending on the design.

The SIPs will be affected by moisture if stored outside for a long period prior to building. This may make joints tight.

Foam adhesive may be used to make full airtight joints. The foam is fast expanding, so it is recommended that you fit the panel first to check alignment then remove to apply the foam.

Useful Tools:

Power screwdriver / Impact driver: Good for timberlock / torx bolts.

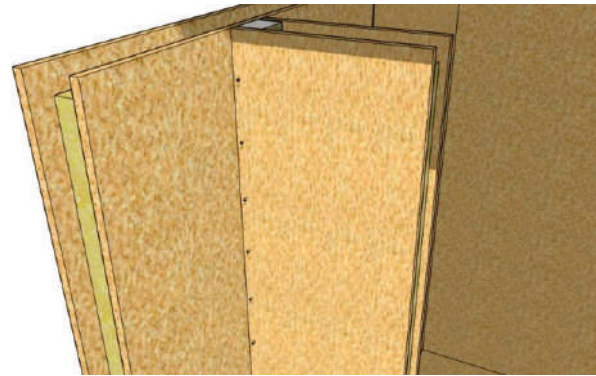
Claw hammer: Useful to clear out foam from SIPs.

Multisaw: Useful to cut SIPs or OSB.

Internal Wall Connection:

The wall edge and sole plates for internal walls are screwed to the walls in advance of the internal SIPs being put into place.

The SIPs are slotted onto the wall edge timber and then both sides of the SIP are screwed to it with a spacing of 200 - 300mm between screws to ensure that the wall section is secured.



Internal SIP screwed to wall edge timber.

Window / Door Connection:

When creating the openings for doors and windows, the heights should be marked on the SIP before setting the door timbers. Make sure you allow room for fitting tolerance with your openings.

Wide openings require greater top tolerances to allow for beam deflection. This results in thicker timber or steel beams and it could also impact the overall building height or overall opening height.

Further detail can be found on the opening details on **pages 8 - 10**.

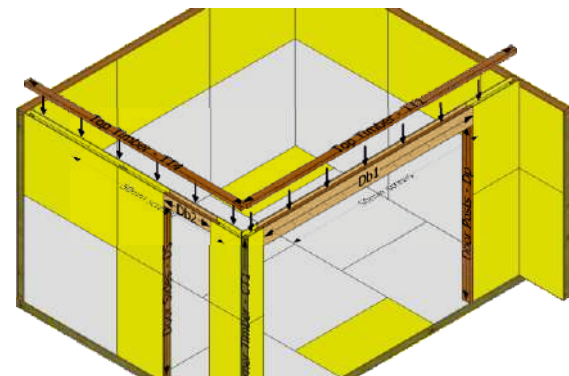


Example door & window openings.

Top Timbers:

These are timbers that sit in the SIP rebate and finish off the tops of the SIP wall so that there is a flush surface to attach onto.

The tops of the SIP wall may already contain timber beams or steel bars for the structure above window/door openings. In these cases, the top timber fit around or on top of it – ensuring to remain flush with the top edge of the SIP.

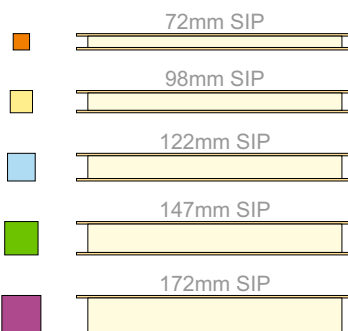


Top timber being installed at the top of the SIP.

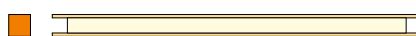
SIP Imagery Key

SIP Model Colour Key		
Colour	Panel Thickness (mm)	Full/Cut Panel
White	72, 98, 122, 147, 172	Full
Orange	72	Cut
Yellow	98	Cut
Blue	122	Cut
Green	147	Cut
Purple	172	Cut

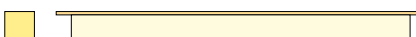
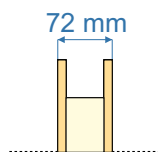
SIP Size Range:



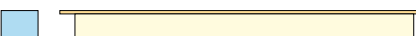
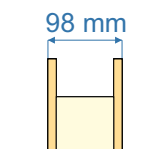
Stacks of SIPs in the Modular Group warehouse.



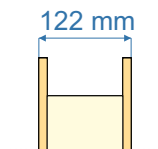
Side-to-side comparison of 72mm SIPs.



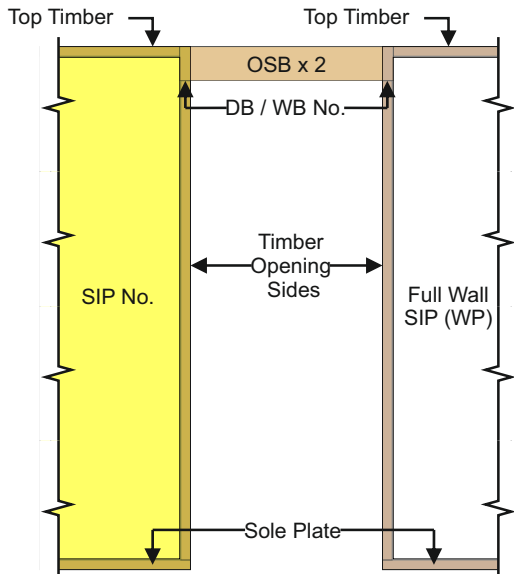
Side-to-side comparison of 98mm SIPs.



Side-to-side comparison of 122mm SIPs.



Opening Details - From Floor



Opening Type A: Window / Door bar above.

When creating this type of opening, you should first build your SIP walls and fix these in place.

Next, you should cut your timber Opening Sides to the correct length. They should be cut to the distance between the height you want the opening to be and the top of the Sole Plates.

Glue and screw your timber Opening Sides into place in the SIP rebate with 50mm screws.

Once the timber Opening Sides are secured, the Door Bar (DB) / Window Bar (WB) can be glued and screwed into place above the opening with 50mm screws.

Finish off the elevation by running the Top Timbers through the SIP rebate up to the Door Bar / Window Bar on both sides.

For smaller Door Bars / Window Bars, the Top Timber may sit on top of their core and fixed to their timber and OSB.

Opening Type B: SIP above.

When creating this type of opening, you should first build your SIP walls and fix these in place.

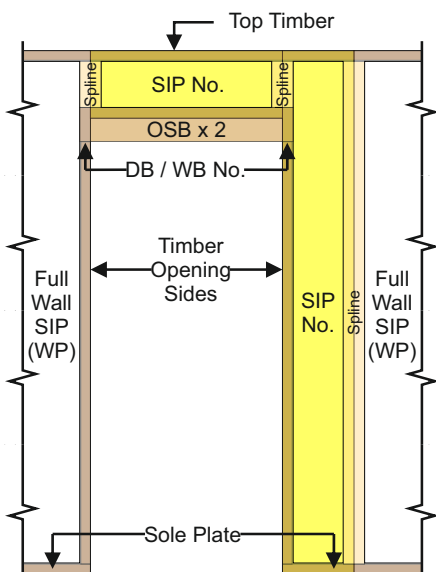
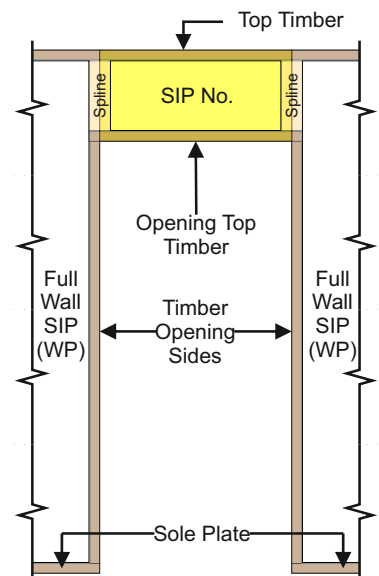
Next, you should cut your timber Opening Sides to the correct length. They should be cut to the distance between the height you want the opening to be and the top of the Sole Plates.

Glue and screw your timber Opening Sides into place in the SIP rebate with 50mm screws.

The next step is to cut the Opening Top's timber. It is cut so that it can sit across the two timber Opening Sides, each end inside the SIP rebates. Glue and screw the Opening Top's timber onto the Opening Sides with 50mm screws.

Once the Opening Top is secured, the SIPs and Splines above it can be fixed in place like normal.

Finish by running the Top Timbers through the SIP rebate.



Opening Type C: SIP & Window / Door bar above.

When creating this type of opening, you should first build your SIP walls and fix these in place.

Next, you should cut your timber Opening Sides to the correct length. They should be cut to the distance between the height you want the opening to be and the top of the Sole Plates.

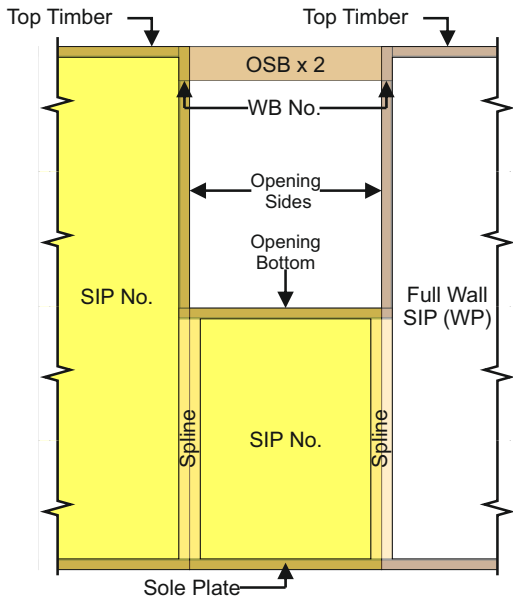
Glue and screw your timber Opening Sides into place in the SIP rebate with 50mm screws.

Once the timber Opening Sides are secured, the Door Bar (DB) / Window Bar (WB) can be glued and screwed into place above the opening with 50mm screws.

Once this is secure, the SIPs and Splines above the Door Bar (DB) / Window Bar (WB) can be attached as normal.

Finish by running the Top Timbers through the SIP rebate.

Opening Details - Raised



Opening Type D: Window / Door bar above.

When creating this type of opening, you should first build your SIP walls and fix these in place. Make sure to fix the SIPs and splines that go below the opening in place before you build the rest of it.

To begin, first cut your timber Opening Bottom. It is cut so that it can sit across the opening with each end in the SIP rebate. Glue and screw the Opening Bottom in place with 50mm screws.

Next, you should cut your timber Opening Sides to the correct length. They should be cut to the distance between the height you want the opening to be and the top of the Sole Plates.

Glue and screw your timber Opening Sides into place in the SIP rebate with 50mm screws.

Once the timber Opening Sides are secured, the Window Bar (WB) can be glued and screwed into place with 50mm screws.

Finish off the elevation by running the Top Timbers through the SIP rebate up to the Window Bar on both sides.

For lower and shorter windows, the Top Timber may sit on top WB.

Opening Type E: SIP above.

When creating this type of opening, you should first build your SIP walls and fix these in place. Make sure to fix the SIPs and splines that go below the opening in place before you build the rest of it.

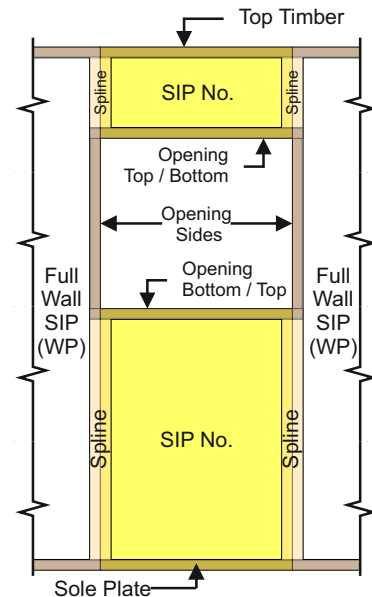
To begin, first cut your timber Opening Bottom and Top. They are cut so that they can sit across the opening with each end in the SIP rebate. Glue and screw the Opening Bottom in place with 50mm screws.

Next, you should cut your timber Opening Sides to the correct length. They should be cut to the distance between the height you want the opening to be and the top of the Sole Plates.

Glue and screw your timber Opening Sides into place in the SIP rebate with 50mm screws.

Once secured, glue and screw the Opening Top's timber onto the Opening Sides with 50mm screws. Once this has been put in place, the SIPs and Splines sat above it can be fixed like normal.

Finish by running the Top Timbers through the SIP rebate.



Opening Type F: SIP & Window / Door bar above.

When creating this type of opening, you should first build your SIP walls and fix these in place. Make sure to fix the SIPs and splines that go below the opening in place before you build the rest of it.

To begin, first cut your timber Opening Bottom. It is cut so that it can sit across the opening with each end in the SIP rebate. Glue and screw the Opening Bottom in place with 50mm screws.

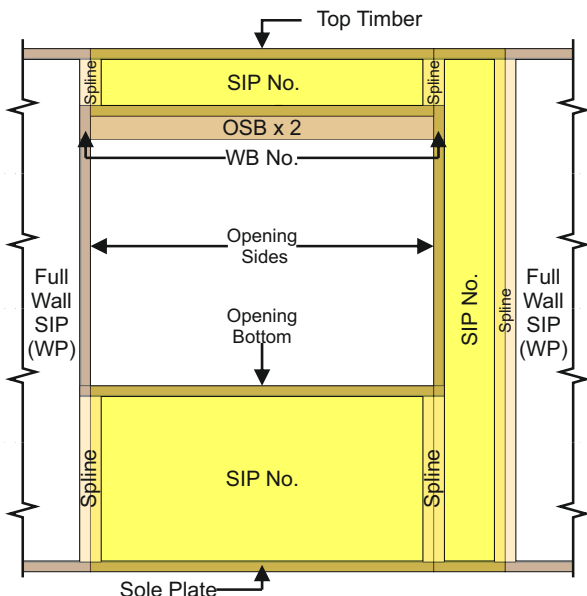
Next, you should cut your timber Opening Sides to the correct length. They should be cut to the distance between the height you want the opening to be and the top of the Sole Plates.

Glue and screw your timber Opening Sides into place in the SIP rebate with 50mm screws.

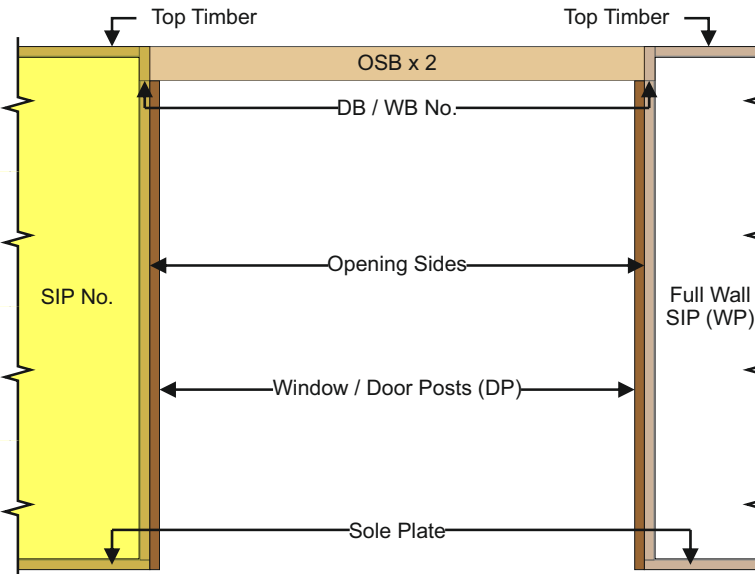
Once the timber Opening Sides are secured, the Window Bar (WB) can be glued and screwed into place with 50mm screws.

Once this is secure, the SIPs and Splines above the Window Bar (WB) can be attached as normal.

Finish by running the Top Timbers through the SIP rebate.



Opening Details - Large



Opening Type G: Window / Door bar with door posts.

When creating this type of opening, you should first build your SIP walls and fix these in place.

Next, cut your timber Opening Sides to the correct length. They should be cut to the distance between the height you want the opening to be and the top of the Sole Plates. Glue and screw your Opening Sides into place in the SIP rebate with 50mm screws.

The Door Posts should be cut next. Their length should be the total height of the opening. They should be cut from timber that is the width of the SIP wall. Glue and screw the Window/Door Posts (DP) onto the Opening Sides with 80mm. Ensure it is flush with the SIPs.

Once the Door Posts are fitted, the Door Bar (DB) / Window Bar (WB) can be glued and screwed into place with 50mm screws.

Finish off the elevation by running the Top Timbers through the SIP rebate up to the Door Bar / Window Bar on both sides.

For lower and shorter Door Bars / Window Bars, the Top Timber may sit on top of their core and fixed to the timber and OSB.

Opening Type H: Side SIPs as posts for the beam.

For this type of opening, first ensure that the SIPs you are using as posts have rebates deep enough to sit the beam into. Follow the steps in the **FAQ** if you need to modify. Next, fix the walls in place.

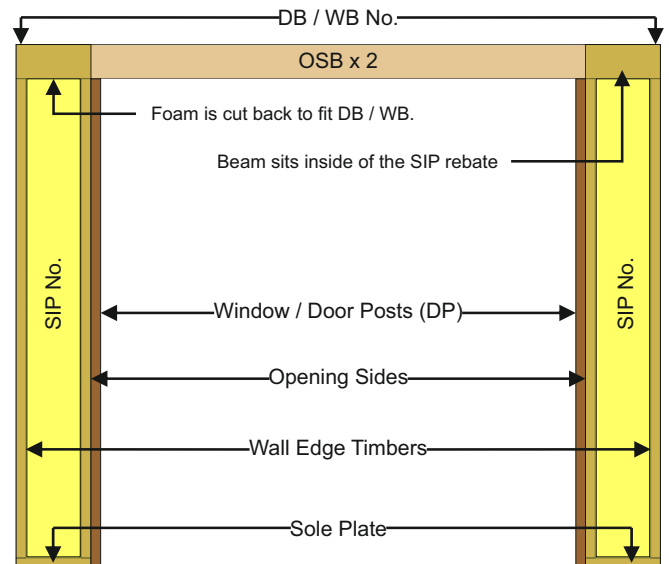
Cut your Wall Edge Timbers and your Opening Sides. They are as long as the space between the top of your opening and the top of the Sole Plates. Glue and screw these timbers into place in the SIP rebate with 50mm screws.

The Window / Door Posts should be cut next. This timber is as tall as the opening and is as wide as the SIP wall. Glue and screw the Door Posts (DP) in place with 80mm screws, ensuring it sits flush.

Once the Door Posts are fitted, the Door Bar (DB) / Window Bar (WB) can be placed into the gap made in the SIPs and then glued and screwed into place with 50mm screws.

You may need to finish off your elevation by attaching a Furring.

For Door Bars / Window Bars wider than the SIP rebate, the OSB on the internal face may be cut out and if it is bigger than that, the beam may be fixed on top of the SIPs rather than within them.



Opening Type I: Steel Beam above.

When creating this type of opening, you should first build your SIP walls and fix these in place.

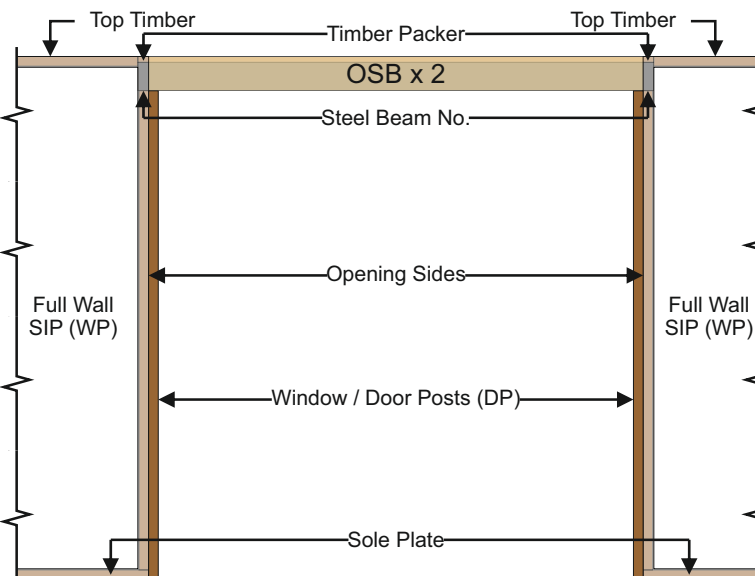
Next, cut your timber Opening Sides to the correct length. They should be cut to the distance between the height you want the opening to be and the top of the Sole Plates. Glue and screw your Opening Sides into place in the SIP rebate with 50mm screws.

The Window / Door Posts should be cut next. This timber is as tall as the opening and is as wide as the SIP wall. Glue and screw the Door Posts (DP) in place with 80mm screws, ensuring it sits flush.

Once the Door Posts are fitted, the Steel Beam can be glued and screwed into place with 50mm screws and Steel Tappers.

Finish off the elevation by running the Top Timbers through the SIP rebate up to the Steel Beam on both sides.

For lower and shorter Steel Beams, the Top Timber may be fixed on top of either the steel or the timber packers. For Beams wider than the SIP wall, modifications suggested in **Type H** may be needed.



Door Posts & Ridge Beams

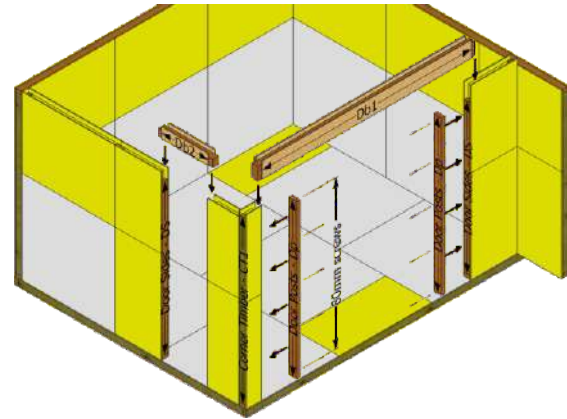
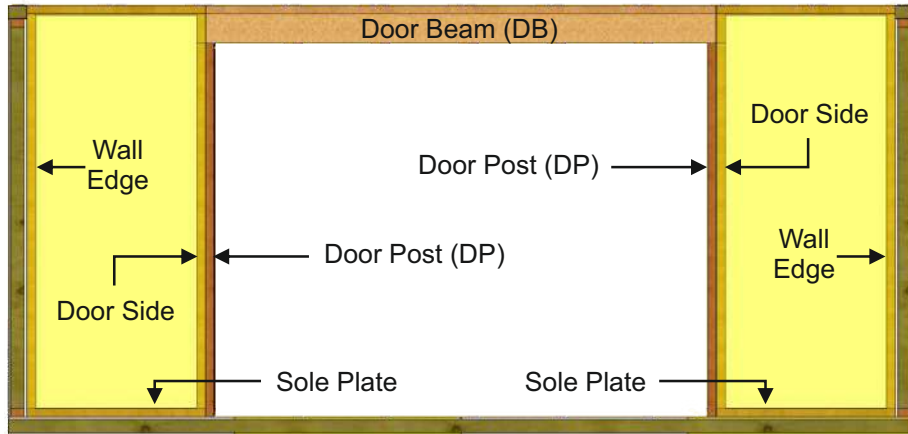


Diagram of door posts and beams installation.

Door Posts:

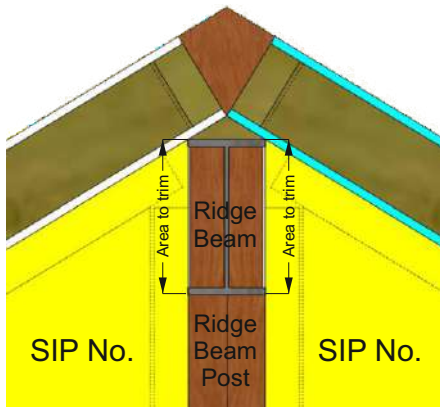
Suitable timbers for Door Posts should be as wide as the walls they are being attached to, ensuring a flush finish. The timbers are cut to the height of the opening.

Once the SIP walls have been fitted, glue and screw the Door Posts into place using 80mm screws and attaching to either timber on an opening side or onto a SIP face.

Should any openings need to change size, door posts can be used to either pack out or widen the size of an opening through modification.



Finished door & window openings.



Sectional detail of a Steel Ridge Beam.
Modification areas highlighted.

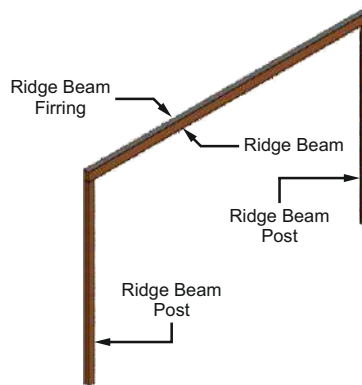
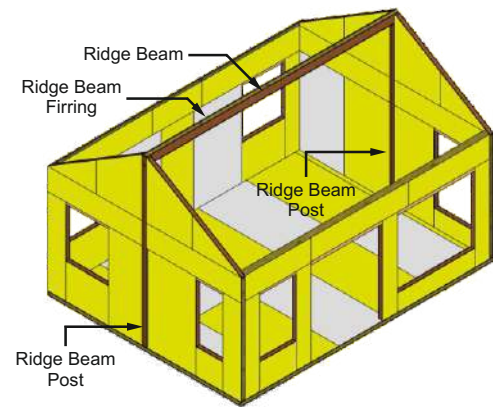


Diagram of Ridge Beam structure.



SIP walls with Ridge Beam inserted.

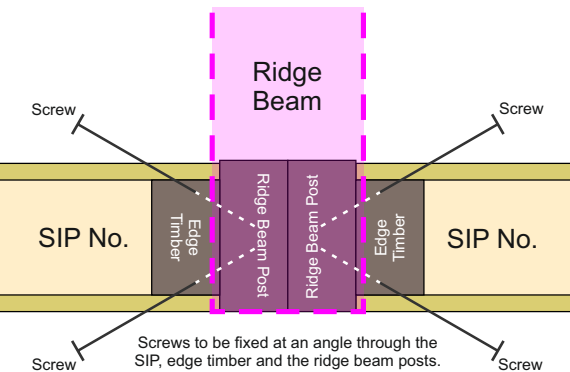


Diagram showing how to screw at an angle.

Ridge Beams:

To prepare for the ridge beam you will typically finish all of the SIP walls first. Once complete, fix the Ridge Beam Posts into place by gluing and screwing at an angle. The Ridge Beam Furring should be attached to the Ridge Beam before continuing.

Typically, the SIPs on top of the gable end of the building need modifying to fit the beam. Scribe the end section of the Ridge Beam and its Furring on paper to use as a guide to draft the area of the SIPs that will need to be cut out for the beam to fit in.

Cut the top SIPs as drafted, create a deeper rebate, if needed, and offset the timber.

Take care to follow proper health and safety procedures when lifting and fixing the Ridge Beam into place. The Ridge Beam should be secured with screws fixed at an angle to the Edge Timbers on the adjoining SIPs and the Ridge Beam Posts.

The roof is secured onto the Ridge Beam and it may also fix any internals fittings.

Timber Firrings & Angled SIPs

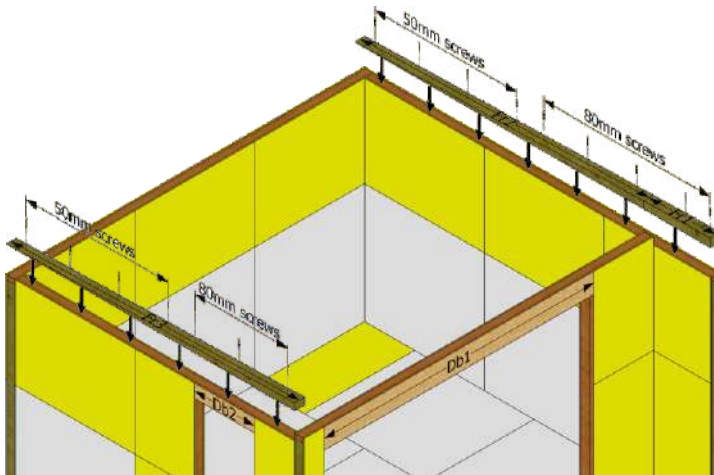


Diagram of furring installation on top of finished SIP walls.

Firrings:

The Firrings are a piece of timber that sits beneath the roof and on top of the Wall SIPs. This creates the roof angle and helps bring water to the bottom of the building. The screws used to attach Firrings are 50mm on the short end and 80mm at the top. Typically, Firrings are delivered in two or more parts that make up their full length. Some Firrings are rectangular rather than angled. When the roof is installed, these Firrings may need to be packed out with spare timber in the roof angles gap. Customer Instructions for kits will include information on where Firrings should go.



The firrings will usually come in two halves stacked on top of the other. Simply fix these next to each other.

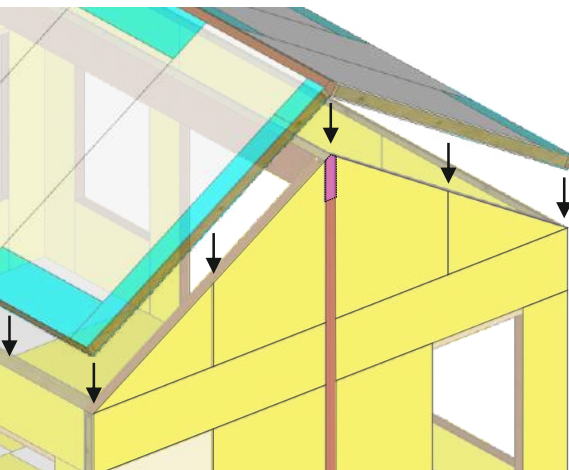
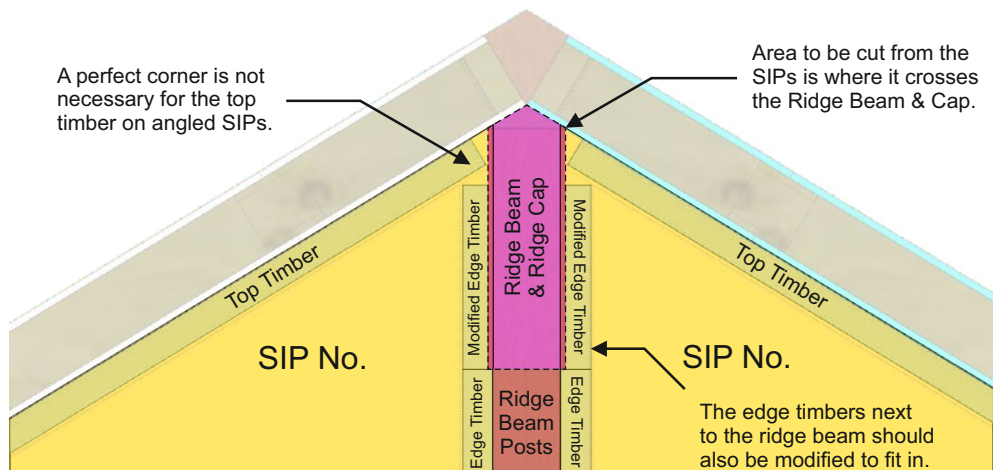


Diagram of an Angled SIPs within a build.



Sectional diagram of modifications on an angled SIP next to a Ridge Beam.

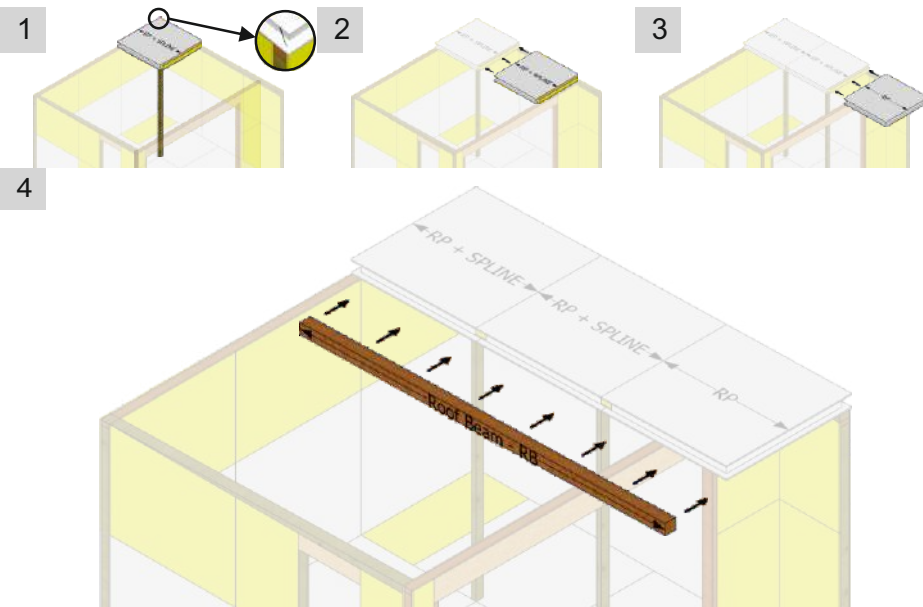


Photograph of an Angled SIP.

Angled SIPs:

On a steeper roof, SIPs cut an angle are typically used instead of Firrings. The angled SIPs are used much like any other SIP. One difference is to be mindful of how the Top Timbers are put in place. Any edge timbers or wall splines put in the SIP wall should ensure that they will not intrude on where the Top Timber needs to run across to be flush with the edge of the SIPs. Typically, the gable ends of an apex roof will use angled SIPs. In these cases the SIPs may need to be modified to give space for the Ridge Beam. For more information on this refer to **page 11**.

Flat Roof Construction



Build Order:

Before beginning to construct a Flat Roof, ensure that the **Top Timbers** and the **Firrings** have been installed correctly and that they are secure.

Whilst constructing the roof, make sure that you are using props to support the parts of the roof.

To begin the roof, put the first rows of SIPs and **Roof Splines** in place. Use screws to temporarily hold SIPs where required. When this is done, put in the first **Roof Beam** and attach the SIPs to it.

Attach the next row of SIPs onto the **Roof Beam** and repeat the previous process until the roof is finished. **Roof Edge Timbers** should be used to fill out the perimeter SIP rebate on the roof.

Some buildings will require **Roof Facing Timbers** which extend the edge of the roof.

Finally, secure the roof down to the walls below.

Standard Roof Beam (RB): Timber is typically used for the Roof Beam. This runs through the SIP rebate and is attached to adjoining SIPs & splines.

Composite Roof Beam (CRB): These are used over larger spans. Additional timber strengthens the beams and each edge sits in a SIP rebate.

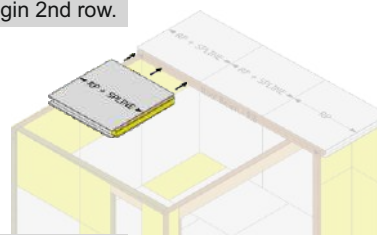
Steel Roof Beam (SRB): Over the largest spans steel might be used in SIP rebates instead.

Roof Spline (S): The SIPs are joint together with these. They run perpendicularly with Roof Beams.

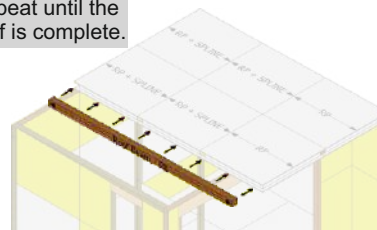
Roof Edge Timber (RET): The SIP rebate of the roof perimeter is filled with this timber.

Roof Facing Timber (RFT): This timber attached to the roof edge and used to extend the roof size.

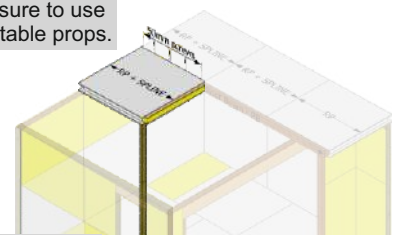
Begin 2nd row.



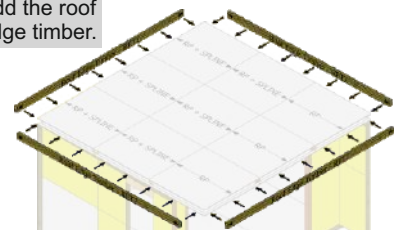
Repeat until the roof is complete.



Ensure to use suitable props.



Add the roof edge timber.



Finishing the Roof:

Securing Down the Roof:

Ensure that the SIP roof is complete before you begin to secure it down and that the props remain in place until it fully secured.

When securing the roof, screw down through the whole panel, top-to-bottom. The screws go to the SIP wall attaching to **Firrings** or the **Top Timbers**.

Membrane Wrap:

The SIP building is now ready for the membrane wrap to go on it. Refer to **page 16** for more details.

Overhangs & Battens:

Once the membrane wrap is installed, battens for the External Walls, EPDM Roof and Overhangs can be screwed into place.

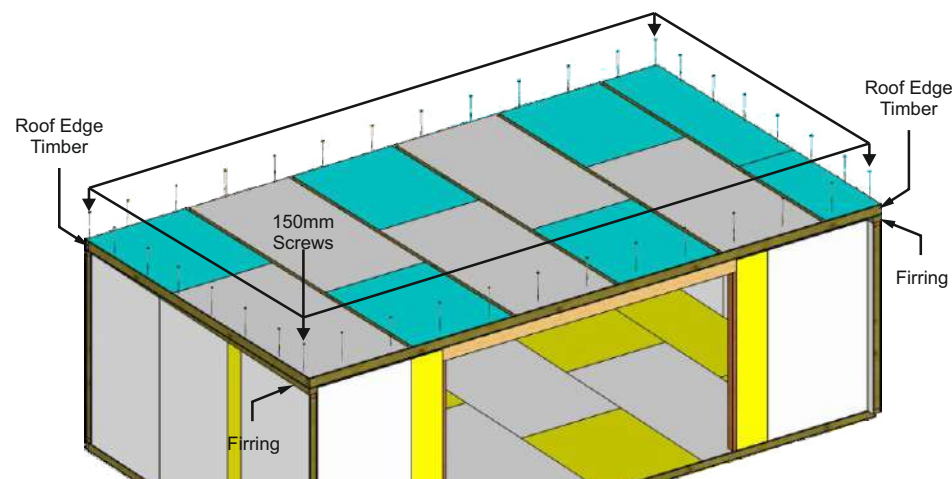


Diagram shows an example of how the roof is attached to SIP walls.

Apex Roof Construction

Build Order:

Before beginning an Apex Roof, ensure that the **Top Timbers**, the **Firrings** and the **Ridge Beams** are correctly installed and secure.

Whilst constructing the roof, make sure that you are using props to support the parts of the roof.

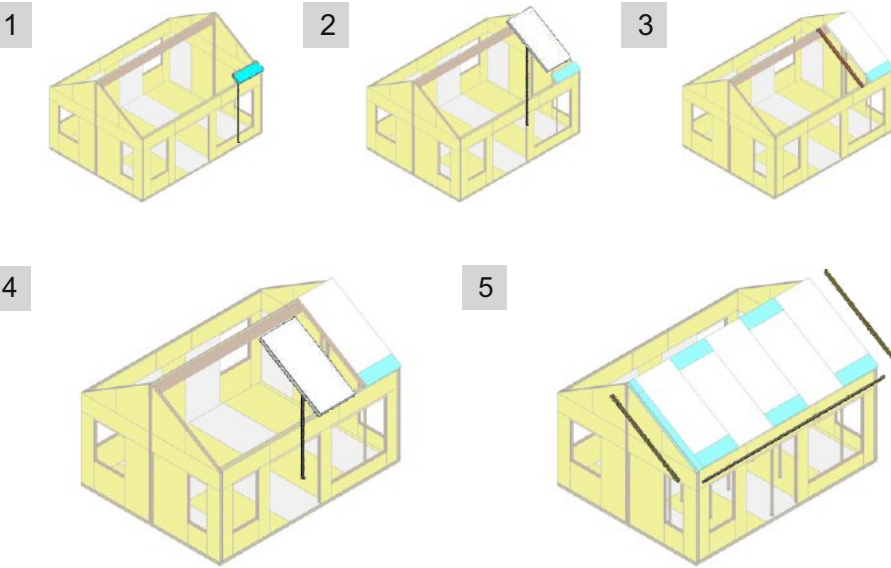
To begin the roof, put the first rows of SIPs and splines in place one side of the apex. Use screws and props to temporarily hold SIPs in place and then put the **Roof Beam** in and fix it to the SIPs.

Attach the next row of SIPs onto the **Roof Beam** and repeat the previous process until the side of the apex roof is finished.

When this is complete fix the **Apex Ridge Cap** in place at the peak, screwing it into the SIP rebate.

The **Roof Edge Timber** & **Roof Facing Timbers** should be attached in a similar way to a flat roof.

Secure the roof to the walls & **Ridge Beam** below.



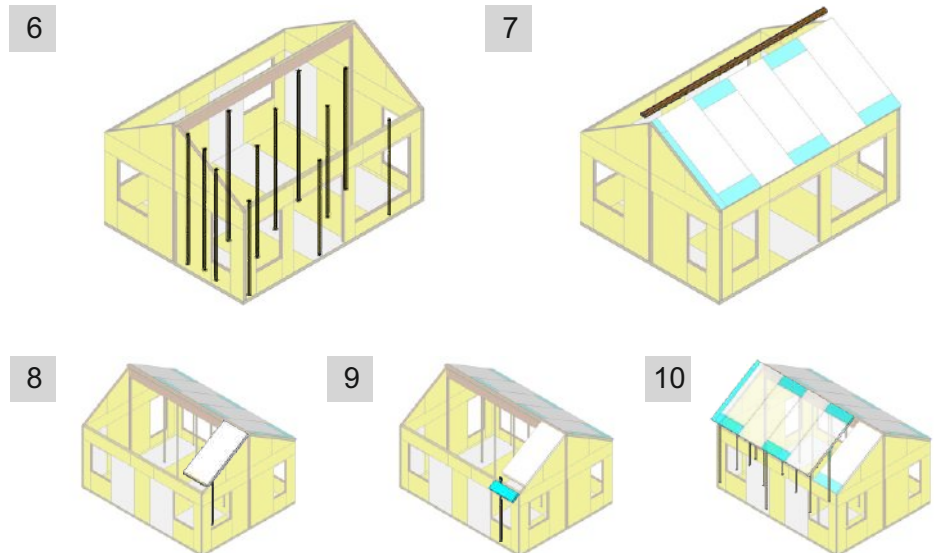
Apex Ridge Cap (ARC): The ARC is a composite timber beam designed to serve as the peak on an apex roof and join both sides of the roof together.

Ensure that proper health and safety procedures are followed when lifting and installing the ARC.

The second side of the roof should be started by attaching the first SIP to the **Apex Ridge Cap** and screwing and gluing it into place.

The SIPs and splines for the rest of the row should be put into place and then the construction of this side of the roof can be completed similarly to the first side, making sure to connect each rows starting SIP to the **Apex Ridge Cap**.

Once complete this side of the roof should also be secured to the SIP walls & **Ridge Beam** below.



Finishing the Roof:

Securing Down the Roof:

Ensure that each side of the SIP roof is complete before you begin to secure them down and that the props remain in place until it is fully secured.

When securing the roof, screw down through the whole panel, top-to-bottom. The screws go to the SIP wall attaching to **Firrings** or the **Top Timbers**.

Membrane Wrap:

The SIP building is now ready for the membrane wrap to go on it. Refer to **page 16** for more details.

Overhangs & Battens:

Once the membrane wrap is installed, battens for the External Walls, EPDM Roof and Overhangs can be screwed into place.

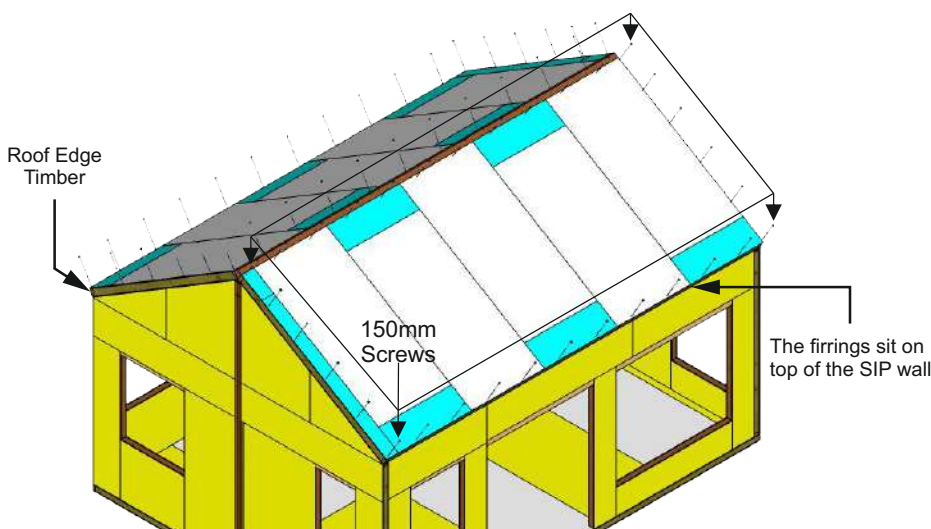
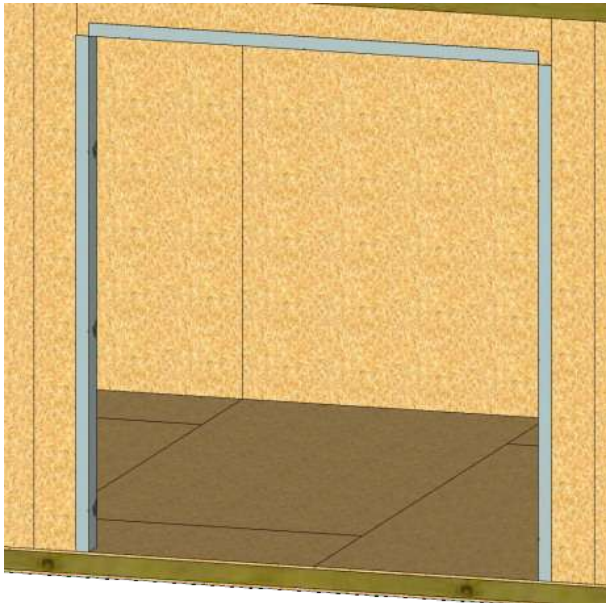


Diagram shows an example of how the roof is attached to the SIP walls.

Membrane Wrap Installation

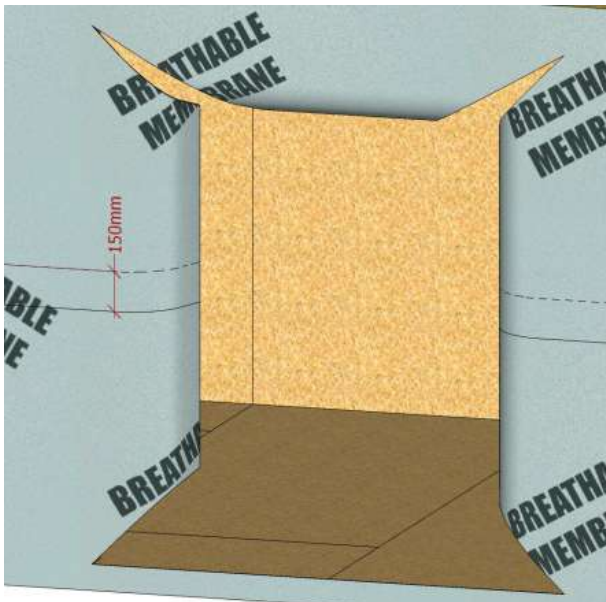


Step One: Cover the Openings

The first step requires you cut an adequate amount of the breathable membrane to cover the edges of the openings.

Fix these cuts of the membrane into place over the opening's edges so that the internal timbers sitting between the OSB is covered.

The membrane wrap can be fixed by stapling it to the OSB on the SIPs.

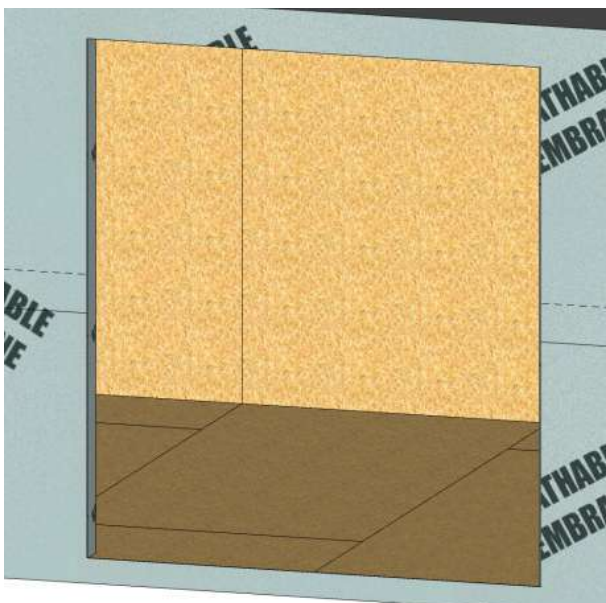


Step Two: Cover the Building

Once all of the openings have been covered sufficiently, the building can be covered with the membrane wrap.

You should cut out holes for the openings – ensuring that enough is left over to fold the wrap around the corners of the opening whilst doing so.

Staple the breathable membrane to the SIPs to fix it in place. As you work the membrane wrap up the building, make sure the top sections of the membrane overlaps the section below by at least 150mm.



Step Three: Finish the Openings

The leftover membrane wrap from cutting the openings should be used to wrap around the corners of the opening as intended.

Pay careful attention to make sure that all the corners have been wrapped properly.

If building has been wrapped correctly, the opening should resemble the images to the left.

Example Build Images



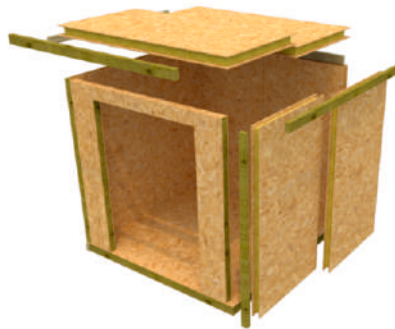
Floor SIP being attached to a timber subframe.



Timber subframe on ground screws.



Constructions of wall started from a corner.



SIP roof being finished.



EPDM rubber roof installed.



SIPs built to shell on a chassis.



Battens put onto membrane wrap.

FAQs & Troubleshooting

FAQ's & Troubleshooting

Expanding Foam - Is used to fill any voids created when building. It can be used on every joint if you wish to create an air tight structure.

Timber Splines - Timber can be used as an alternative to splines when joining panels together.

Splines and timber - Can be used as joined sections. Structural timbers should be single length, if possible.

Small or light damage - If found on corners and edges it will not affect structural integrity of the build.

Panel edges - If needed, SIP edges can be cut to make edges square during build.

Polyurethane glue - This will stain hands and clothing. Gloves should be worn for protection.

Sole plates - Can alternatively be laid as full lengths for each elevation and doorways cut out after SIP build.

Modifications - Builds can be **modified** by moving full panels around. The SIPs can be cut after installation to make windows and doors. Edges will either need to be rebated, or **cut larger and plated**.

Rebating foam for clearance - The best method is to cut SIPs or OSB with a handsaw or multisaw and use a claw hammer to chop out the foam when rebating the SIP. Polyurethane foam does not cut with a hot knife.

