ConservatoryLand®

More light. More space. More living.

Conservabase Installation guide

Comprehensive instructions for • Base • Brick skirts • PVC skirts
•Dwarf Wall • High wall • Brick and Ready to render

Contents

Precautions

Please be aware of sharp edges on the steel base sections and modular wall box sections.
It is recommended that protective gloves are worn.
All wall boxes are a two person lift. Plan the lift, and lift correctly.
We recommend using the following Personal Protective Equipment where required:
Safety glasses and hearing protection when drilling.
Dust mask if dust is likely to be generated.
It is advisable to keep arms and legs covered.

Recommended materials and accessories

All fixing bolts, screws, glazing packers, brick slip adhesive, brick slip mortar and SMX Roof Glass Silicone is provided. (If the conservatory has self cleaning roof glass we supply a specialised silicone that does not damage the self cleaning coating on the glass units).

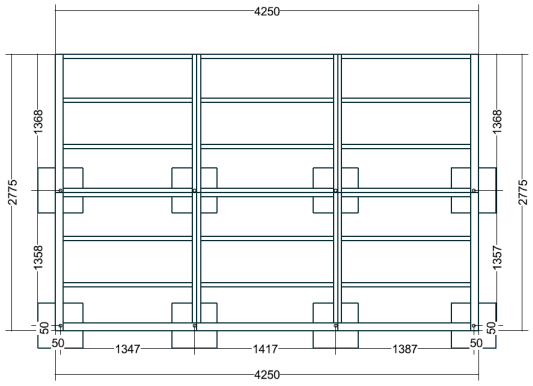
	Base	Frames	Roof
Sealants			
Silicone (Clear for sealing between & under wall boxes - colour of choice for required frame finish).	✓	✓	✓
Lead Sealant - (Sand and cement if pointing the lead work).			✓
Building Materials & Accessories.			
Foundation Blocks - 440mm x 215mm x 355mm.	✓		
Post crete - 2 x Bags per pad.	✓		
Code 4 Lead (Size & Length to suit the job)			✓
Rubble bags to remove waste.	✓	✓	✓
Roll of visqueen - To protect the finished floor.	✓		
Timber (Lean To Only) 50mm x 50mm to be used.			✓

Recommended tools and equipment	Base	Frames	Roof
Power Tools			
SDS Drill	✓	✓	✓
Impact Driver or Cordless Drill.	✓	✓	✓
Circular Saw. (For cutting the chipboard flooring).	✓		
4" Angle Grinder. (Mortar cuts for lead work).			✓
Breaker/ Kango. (Only required if you are breaking through concrete for required pads)	✓		
Hand Tools			
Spanner Set.	✓		
Socket Set.	✓		✓
1800mm Spirit Level.	✓	✓	✓
600mm Spirit Level.	✓	✓	✓
Hand Saw. (To cut insulation sheets - long craft knives can also be used).	✓		
Marker Pen. (To mark out the insulation cuts).	✓		
Tape Measure.	✓	✓	✓
Glazing Mallet.		✓	
Glazing Paddle.		✓	
Silicone Gun.	✓	✓	✓
Sharp putty knife or similar. (For removing frame glazing beads).		✓	
Lead Beater.			✓
Small trowel and pointing tool. (For pointing brick slips).	✓		
Spade.	✓		
Wheelbarrow.	✓		
Pick. (If you need to break up any difficult terrain).	✓		
G-Clamps. (To secure frames / ring beams / corner posts etc. when fixing.)		✓	✓
Accessories			
8mm SDS Drill Bit. (For securing base sections to the house wall).	✓		
6.5mm SDS Drill Bit. (For securing wall boxes / windows / wall plates to the house wall).	✓	✓	✓
4mm HSS Drill bits. (For securing wall boxes and flooring - Multiple required).	✓		
T30 Torx Bits. (For direct to brick fixings).	✓	✓	✓
Pozi Drive Bits.	✓	✓	✓
56mm hole cutter. (For downpipe spigot drill & fix adaptor.			✓
PVA Glue. (Gorilla Glue or similar for floor joints).	✓		
Solvent Cleaner. (NOT to be used on foiled frames or any self cleaning glass).		✓	✓
Glass Cleaner & Paper Tissue Roll.		✓	✓
Super Glue & Activator		✓	✓

Click or scan

Marking out foundation pads

Start by referring to your pad layout plan that has been emailed as part of your instructions.



To determine the positions of your foundation pads you will need to refer to the foundation pad layout drawing. This will have been sent to you as part of the documents with your final sign off plans. A copy will also be included as part of your instructions, See an example foundation pad layout drawing on the left.

When setting out the pad positions, you must mark on your property wall where the conservatory is to start and finish. Please note that the depth of the skirts that attach to the base are not included in the foundation pad layout drawing, The dimensions shown relate to the steel frame only. For brick skirts add 25mm each side to make up the full external base size, For PVC or Ready-to-Render skirts add 10mm to each side to make up the full external base size of your conservatory.

Mark the pad centres first for all foundation pads.

If applicable, Lift any corresponding slabs before marking out the full 450mm x 450mm foundation pad size.

Once all of the pads are marked out you are ready to start digging out the foundations. The example to the left shows slabs lifted and pads marked out ready to be dug.

Installing foundation pads

Click or scan

For each foundation pad, dig a hole **450mm x 450mm x 450mm.** The 450mm depth is the minimum depth. If the ground is not firm at a depth of 450mm it may be necessary to dig deeper until you hit firm ground. This can be built back up to the 450mm depth using layers of well compacted hardcore.

Before installing any foundations make a note of the height that the top of the foundation needs to be. On your 'Manufacturing Details - Final Sign Off' document, in the bottom right corner of the page, there will be heights from the finished conservatory floor level (top of the chipboard flooring), to the top of the foundation pads. In the example on the right, The top of the foundation pad can be between 170mm and 225mm below the finished conservatory floor level.

epth from top of conservatory finished floor level
top of foundation pads

Base Leg Type	125mm
Minimum Depth	170mm

Dig out the holes for your 450mm x 450mm x 450mm foundations.

Check the width and length are a minimum of 450mm x 450mm.

Check the depth is a minimum of 450mm to solid ground. Dig deeper if the ground is not firm.

You can now either use foundation blocks and post crete to construct your foundation pads or fill the holes with concrete. If you are using foundation blocks and post crete, please follow the instructions below.

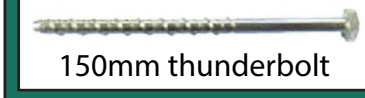
Line the bottom of the hole with post crete, checking the depth to allow the foundation pad to sit on top. The pads should be level with, or slightly below ground to avoid having to cut the skirts around the pads. Once the pad is in place, fill the surrounding gaps with post crete, and then sprinkle it with water and tamper down.

When you fill the holes with foundation pads / concrete it is important to get the surface of the foundations level. It is not critical if the pads are not perfectly level though, as the purpose of the adjustable leg is to enable the base to be levelled on uneven or sloping ground.

Installing the first steel base section

Click or scan

First of all, locate your steel frame layout guide, from the instructions that have been emailed to you. The guide is a plan view, similar to your pad plan, but shows the base section numbers. The sections should be installed in number order.



150mm thunderbolt

Components are found in the bag marked with **green** tape.

Fit the locking nuts to each of your adjustable legs, Then attach each of the adjustable legs to the underside of each base section. Do not tighten the lock nuts at this stage. You can adjust the height of the legs once each base frame section is positioned in place.

Lay the first base frame section against the property wall, As shown in the base layout plan.

Remember when positioning the base frame, to leave enough clearance for skirts, chipboard flooring, and any other additional flooring you intend to use.

Adjust the height of the steel base frame by winding the adjustable legs in or out, depending on the height of the finished floor level required.

We recommend using a spirit level to do this. Once you have set the base frame to the correct height, tighten the lock nuts.

There will be pre-drilled holes in the base frame where it will fix to the house wall. Drill an 8mm pilot for the fixings

Secure the base frame to the house wall using the 150mm thunderbolts. An impact driver is used in this example

Alternatively, a simple hand held ratchet spanner can be used, as shown in the example above.

Connecting base frame sections

Click or scan

Identify the next base section and rest the next base section in place, there are welded tabs for the section to sit on. These support the base sections before you level the base section and bolt them together. Use the 100mm bolts as shown on the right.

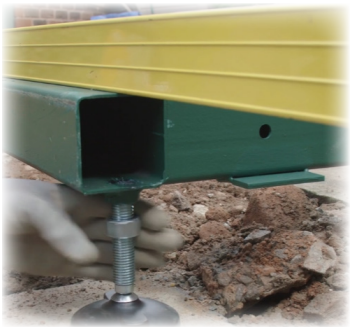
100mm x 10mm frame connecting bolt

Components are found in the bag marked with **green** tape.

Bolt the two base sections together using the 100mm base connecting bolts. There are two pre drilled holes where each base section joins, depending on the size and shape of your base frames there may be three.

Adjust the height of the steel base frame as per the previous section, by winding the adjustable legs in or out, depending on the height of the finished floor level required.

We recommend using a spirit level to do this. Once you set the base frame to the correct height, tighten the lock nuts.



Next, if the steel frame section sits against your property wall, fix into place as per the first section. Drill an 8mm pilot hole into the house wall and then fix into the wall with the 150mm Thunderbolts.

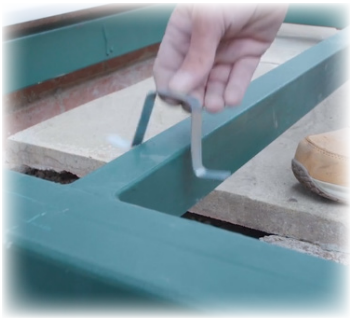
Continue connecting the steel base frames together in order, fixing to the house wall with the 150mm Thunderbolts, and bolting together with the 100mm x 10mm bolts where applicable, levelling and adjusting as you go until you have completed construct-ing the Conservabase. Make sure you fully tighten all bolts you may have left loose. You are now ready to add the insulation.

Fitting the insulation

Click or scan

Fitting the insulation support tabs

Firstly you will need to fit the insulation support brackets. You will see that there are 4 different types of these, depending on where on the steel base they will need to fit to. Normally, you will need two per steel, in each base section. However, If your base sections are wider than 1200mm, you will need to cut two pieces of insulation to fit each gap, and will need four support brackets for each gap.



Measure the gaps between the steels

Measure the gaps between the steel joists as shown on the photo on the left. Often the sizes between each steel are equal, but check each gap before cutting the insulation to ensure a snug fit

Cut the insulation

Next mark out the sections of insulation, then cut with a saw, long bladed Stanley knife, or similar.

Fit the insulation into the gaps

Fit the insulation snugly into the gap. Repeat this for all base sections ready for the flooring

Installing the chipboard flooring

Click or scan

PLEASE NOTE: You will be sent sufficient flooring sheets, but to maximise them, and avoid running out, you **must** use offcuts first before continuing with a full sheet of chipboard flooring

Start by laying the first piece of chipboard flooring in place, with the cut edge level with the edge of the base. If the chipboard is longer than the base you will need to trim the board. If the section isn't as long as the base, a section of the next flooring section will need to be cut to size to complete the row of flooring. See below.

You may need to cut a section from the second piece of chipboard to complete the first row of flooring. Measure the piece required and cut to size. Then connect to the first section of flooring. All connecting edges of each piece of chipboard flooring will need to be glued, using PVA glue. The remaining piece of the second board you have cut will be used to start the next row of floorboards. **Always** use offcuts first.

Fix the first sections of flooring to the steel base

45mm self-drilling screws
Components are found in the bag marked with **green** tape.

Now fix the first run of flooring sections in place. Although the 45mm screws provided are self drilling, we recommend you drill pilot holes first. Fix each screw no more than 600mm apart into the steel frame joists.

Use the offcut from the second board to start the 2nd row of flooring

Using the offcut from the fist row of flooring, start laying the next row. It is important to always use the offcuts to avoid running out of floorboards. As with the first row, Measure and cut another chipboard flooring sheet to complete the second row of flooring. Always remember that any connecting edges must be glued. Now fix the flooring in place as per the first row of flooring sections

Repeat until the flooring is complete

Repeat this process until all the flooring is complete. Remember to keep using the offcuts, and remember to glue all the connecting joints.

Cover with a suitable polythene sheeting

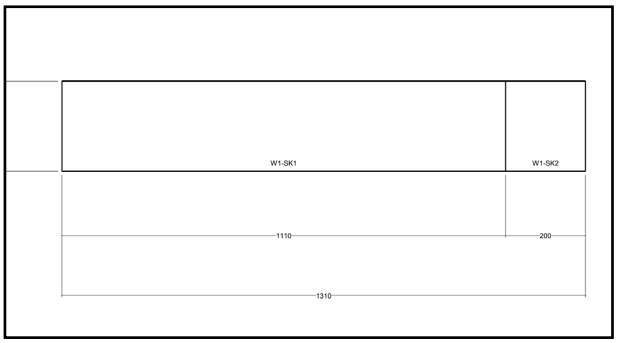
It is recommended that you cover the chipboard flooring with a suitable polythene sheeting. This will keep the flooring clean and dry during the rest of the installation

Click or scan

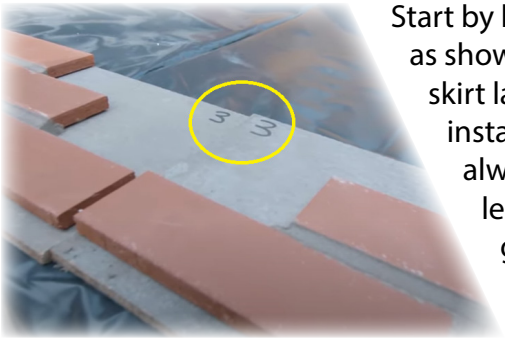
Installing brick or ready-to-render skirts

For PVC skirt installation please see the next page

Before you start, you will need your skirt layout guide, from your base instructions (you will have had a copy emailed to you). There will be one page per side of the conservatory. Each page is viewed as if you are looking at the conservatory, rather than plan view. There may also be your wall sections (if applicable) shown above the skirt sections. If you are viewing this on a phone, PC or tablet, click the image on the right to show a full size version of the example skirt layout.

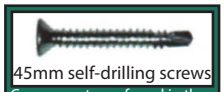


The clickable link in the top right of the page shows a video for a ConservaBase with a brick finish. However, the principles for both brick skirts, and ready-to-render skirts are the same. Both use the same Pyrok board, both are labelled in the same way, and overlap at the corners the same.



Start by laying out the skirts. Each skirt will be numbered at the corners, as shown circled in the photo on the left, and will correspond with the skirt layout plan in your instructions. It is important that the skirts are installed in number order for them to fit correctly. The skirt height is always supplied in full brick courses, so you may need to trim the skirt level, prior to fixing to the steel base. This can easily be done using a grinder with a diamond cutting blade. Always trim the bottom of the skirt, not the top, to make sure the bricks line up perfectly with your walls (if applicable).

Starting with the first skirt against the house wall, Position this over the polythene sheet, and level with the top of the chipboard floor. Please note: The skirt against the house wall may not be labelled no.1, please refer to your skirt layout guide. Once perfectly level, pre-drill, and fix into the steel base using the 45mm self drilling, countersunk screws.



45mm self-drilling screws
Components are found in the bag marked with **green** tape.

Line up the second section next to the first, ensure it is perfectly level and fix into place using the 45mm countersunk self tapping screws. Repeat this for all remaining skirt sections, ensuring each one is perfectly level. On the corners, the skirts are designed to overlap, as you can see in the photo below.

Remember to trim down skirts where required. Skirts can also be cut around paving slabs, or foundation blocks as shown in this brick skirt example.

Click or scan

Installing **PVC skirts**

Unlike conservatories with a brick or ready-to-render skirt, there is no skirt layout guide needed. The PVC skirts are supplied in 5000mm lengths, to trim down to the correct size on site.

Start by measuring the length needed for the first piece of PVC skirt. Unlike a brick or ready-to-render skirt, the PVC skirt does not need to overlap at the corners. Once you have measured the length required, cut to size to size.

You may need to trim the skirt height to suit your ground. Do this by positioning the length of skirt in place, to the desired height, and then mark where you need to cut. Once marked cut the skirt carefully to the correct size. Each skirt will need to be measured in this way in case there is any variation in your ground level.

Now it is time to fix the skirt into place. It may help if you mark a line over the protective covering to use as a guide for your screw positions. Pre-drill and then fix with the 45mm self drilling screws, fit a PVC screw cap to each screw before fixing into place. Fix loosely until the skirt is fully fixed in position. You should fix at approximately 500mm centres. Once you have loosely fixed all the screws in place, remove the protective film from the skirt, and tighten all of the screws. Cover with the UPVC caps.

45mm screws and screw caps

Components are found in the bag marked with **green** tape.

Now you have completed fitting the skirt to the first side of the conservatory, repeat until the PVC skirts are fitted to all side of the conservatory.

For the corner trims, mark the height required and trim to size. Apply suitable adhesive (e.g. super glue) and then fit in place, hold until secure. Repeat this for all corners of your base.

Your conservabase is now complete, and it is time to start installing your frames. Please refer to your instructions for the frame installation guide and frame layout guide.

Installing the dwarf walls.

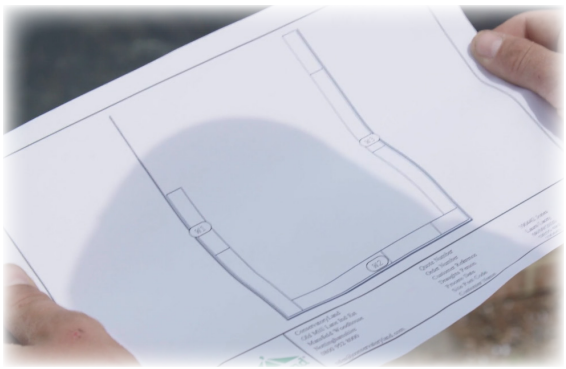
Click or scan

The fixings required for your wall boxes are shown on the right. The 45mm self drilling screws fix the wall boxes down to the steel base. The 50mm direct to brick fixings are used to fix the walls to your property, and the 25mm nuts and bolts connect the wall boxes together.

45mm Self drilling screws | 50mm direct to brick fixings | 25mm x 8mm nut & bolt

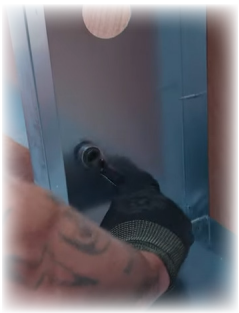
Components are found in the bag marked with **green** tape.

Before starting to install your Conservabase walls, you will need your wall layout plans. These will have a plan view image (viewed from above) showing the wall boxes. Each elevation will be numbered. Most will start with W1 to the left side, But some will numbered differently. Along with this drawing there will be individual pages, showing each wall section as if you were looking side on, facing the wall, and each wall box will be individually numbered. Your wall boxes will be labelled to correspond with these drawings. Start by identifying the first wall section to be installed.



Start by applying a continuous line of sealant to the edge of the base on the side you are about start installing your walls, as seen in the photo on the left, or if you are viewing your instructions digitally, as seen in the video by clicking the link to the top right of the page. Position the first wall section against the house wall, the bricks on the wall should be level with the skirt. If there are doors or windows against the house wall, mark out the aperture as shown on your base plan, to give the position of the first wall section. To avoid injury, protective gloves should always been worn when handling the wall sections as the edges can be very sharp.

Once you are happy with the position of the box it is time to fix it in place. First, fix the box down to the steel base. There are six 45mm self drilling screws provided per wall box. Where possible these should be fitted through the chipboard flooring and into the steel base beams below. We recommend drilling a pilot hole first. Next, fix the wall section to the property wall. There are four 50mm direct to brick fixings provided for each wall section fixing to the property. First pre-drill using a 6.5mm SDS drill bit then fix to the property wall. Make sure you have first checked for any hidden wires or pipes.



Before adding the next wall section, add a line of silicone to the side of the first wall, this should be done for every wall section. Now position the next box in place, and fix to the first, using the 25mm nut & bolts. Fix down to the steel base using the 45mm self drilling screws. Now repeat this for all the remaining wall sections, remembering to bolt them together, fix down to the steel base using the 45mm self drilling screws, and fixing to the house wall using the 50mm direct to brick fixings.

Installing High Walls

Click or scan

Instruction suits both Brick and Ready-to-render walls.

This page focuses on the remaining wall boxes to make up a full height wall once the first row of boxes have already been installed. Please see the previous page **'Installing Dwarf Walls'** for instruction.

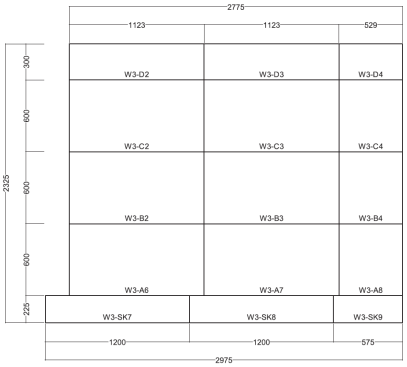
50mm direct to brick fixings

25mm x 8mm nut & bolt

Components are found in the bag marked with **green** tape.

PLEASE NOTE: As the majority of the weight in a wall section is on the brick cladding, the wall section will naturally want to lean forward and MUST be supported in place until the ring beams for the roof are fixed to the wall sections. Make sure the wall is level vertically before supporting in position.

To determine the position of each wall box, you will need your wall layout diagram, emailed as part of your base instructions. It is important you follow this guide. There will be one page per side of the conservatory. Each page is viewed as if you are looking at the conservatory, rather than plan view.



Start by applying a line of silicone to the edge of the first row of wall boxes you have already installed.

Position the first box in the second row of dwarf walls in place, making sure it lines up with the box below, and the brick slips on the outside.

Now fix the wall box to the section below using the 25mm nuts and bolts.

Before fixing to the property wall, you will need to use a spirit level to ensure the wall box is perfectly straight.

Pre-drill, and then fix to the property wall using the 50mm direct brick fixings supplied, As you had done on the initial row of boxes. Now continue to build the rest of the wall as you have already done so far. For all other boxes that are not being fixed to the property wall, Bolt these together vertically to the adjacent box using the 25mm nut & bolts that you have previously used to connect the wall box to the section below.

Installing Brick slips & Mortar.

Click or scan

Now it is time to fill the gaps over the joints in you walls and /or skirts. Apply a few spots of the adhesive supplied, to the back of the brick slips, and then firmly press into the gaps. On the walls, you will notice that the moulding on the brick carrier will space your bricks for you. On the skirts you will need to check the width of the spacer needed, and use a packer to position the slips. A mortar joint is usually 10mm, so two 5mm window packers can be used if you have any left over after glazing your frames. Attach all the brick slips and corners, and allow to dry before pointing up. Drying time can be affected by temperature, read the guidance on the adhesive supplied for further details

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The usual mix of water to dry mortar mix is 4.25. Mix the water with the dry mortar in a clean bucket using either a paddle or a whisk. Make sure the mortar is mixed thoroughly, it should be consistent and creamy. The mixture should form peaks but should not be so stiff that it cannot be turned easily with a trowel or scoop. Small amounts of water or dry mortar can make quite a difference, so add small amounts at a time.

Scoop some mortar into the piping bag supplied. It should be just dropping out of the bottom of the bag in blobs. If it is pouring out, the mix is too wet, and if the mix isn't coming out of the bag at all, It may be too dry. If you need to adjust the mix, return what is in the back to the bucket. Once you are happy with the mix pipe onto the joints between the bricks. The joints should be filled to just overflowing. If gaps appear, fill them in as you go.

The time it takes for the mortar to go off can vary with the brick type, joint depth, and general weather conditions. Keep checking the mortar you have applied first. Once you can put a finger imprint in the drying mortar, without any residue sticking to your finger, it is ready. Tool the joints using a pointing tool, if the surface of the joint looks dragged, or tears up, it is still too wet, and should be left longer. Once the joints are tooled, leave the mortar a while longer to dry out further, and brush off any excess mortar with a brush.

Additional Information

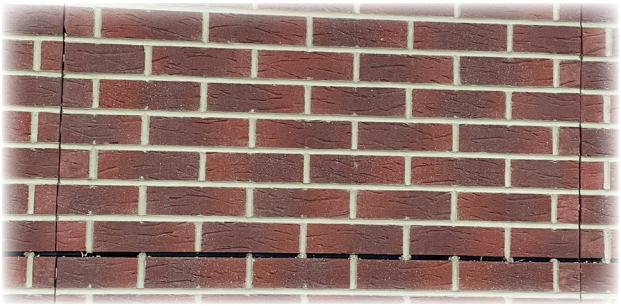
1 - Column wall installation
2 - Conservabase Walls Only Installation
3 - Air Brick / Air Vent Installation
4 - Brick Returns on Victorian Corners
5 - Tiled flooring

To view our full range of YouTube videos, please scan, or click the QR code on the right

Alternatively, in a browser type https://www.youtube.com/@conservatoryland/featured

Click or scan

Column wall installation



If required due to lack of access for installing brick slips your wall may be supplied as 'columns'. The wall boxes will be fully bricked edge to edge as shown in the example on the left. Sealant should be applied between the boxes before fixing together. Some pointing up will still be required, please plan your installation to ensure there is sufficient access to do this.

Conservabase Walls Only installation

Follow the instructions as normal from covering the base with a suitable polythene sheet on page 8. The walls connect together as standard, and are sealed in the same way as the walls would be on a Conservabase, using the 25mm x 8mm nut & bolts, but to secure the Conservabase walls to your existing base use the 50mm direct to brick fixings. There are four 50mm direct to brick fixings supplied per wall box.

50mm direct to brick fixings

25mm x 8mm nut & bolt

Components are found in the bag marked with **green** tape.

Air brick / air vent installation

On a brick skirt, the air bricks will already be installed in the skirt for you. For ready-to-render skirts, the air bricks will be supplied for you to fit in suitable locations on the skirt. For PVC skirts we supply a round PVC air vent, again this is for you to install on site in suitable locations. It is important that you do fit the air bricks / vents to maintain airflow under your steel base and into the air bricks on your property.

Narrow brick returns on Victorian corners installation

Where there is only a small brick or ready-to-render return on your Conservabase wall, for example you have a door close to the corner on one of the conservatory elevations, the insulation will be exposed. Please note, this is not a manufacturing error, the exposed insulation and edge of brickwork if the base has a brick finish, is covered up using the supplied length of 'D'mould trim as pictured in the images. This trim is normally sent in a full length to be cut to suit during the installation.

Tiled flooring

If you intend to add a tiled flooring internal finish to your conservatory, we recommend that you add additional 45mm fixings for the chipboard flooring (not supplied). You should fix the chipboard at no more than 300mm centres. We also recommend overboarding the supplied chipboard flooring with another layer of chipboard before adding your tiles