

Pre-Fabricated Bases For Conservatories

Assembly Instructions (Full Height Models)

Manufacturers of
**DURABASE - Advanced Base and Wall Systems for Conservatories
Pre-Clad Wall Panels & General Fabrication Projects**

FH BASE ASSEMBLY INSTRUCTIONS

GUIDELINES, TOOLS AND TIPS. READ THIS SECTION CAREFULLY

Contained within this instruction manual are step by step instructions to guide you through the installation of your conservatory base.

IMPORTANT

Read ALL the instructions completely BEFORE commencing any work, more that one read may be necessary. Understanding these instructions and familiarity with procedures will make the build process much easier and an enjoyable project to undertake.

RECOMMENDED TOOLS & EQUIPMENT.

Wheel barrow
Builders shovel
Extension lead
Tape measure (5m min.)
1.2m Spirit level
Electric drill (hammer action)
Steel drill bits: 5.5mm & 10mm.
Masonry drill bits: 8mm, 10mm & 16mm.
Cordless screwdriver 12v. Min.
Posi screwdriver bits
8mm tec driver
Spanners 10mm, 13mm & 30mm or adjustable wrench.
Socket 17mm.
Silicone Gun
Stanley knife
Cross cut saw
Skill saw
Bucket
Pointing trowel
Pointing tool
Soft brush

HEALTH, SAFETY & ENVIROMENTAL ISSUES

As with any type of construction work, there are inherent dangers when assembling a conservatory base. The following supplement is designed to supply the installer with general health, safety and environmental information that may be required during the assembly of a conservatory base. The appendix is a guide to 'best practise' but cannot be considered as comprehensive.

You are advised to work safely at all times.

1. General Site Safety

All sites are different and have different hazards. Have a general regard to what can cause harm. The construction site itself should be made a restricted area. Particularly at risk are children and animals. You also need to consider the security issue.

Organise your space. Don't open boxes haphazardly and leave components lying around that can get damaged, lost or pose a trip hazard. Be aware of the weather forecast. Wet conditions cause specific hazards. Put controls in place to manage any possible vehicular movement on site. Protect the environment by avoiding and fugitive waste. Dispose of your rubbish appropriately.

2. Personal Protective Clothing

The following PPE should be worn throughout the construction:

A hard hat

Safety footwear

The following PPE should be worn under certain conditions: (Follow machinery guidelines where applicable)

Safety glasses when drilling

Hearing protection when drilling

Dust mask if dust is likely to be generated

Gloves as applicable

Advisable to keep arms and legs covered.

Be aware of sharp edges on steelwork.

It is advisable to have a first aid kit handy – just in case.

3. TOOLS

The tools you use are your responsibility.

We advise:

-Check the condition of your tools prior to use, for obvious damage. Get them checked out if in doubt. Arrange for your tools to have a portable appliance test.

- Any electric hand tools are 110 volt or used in conjunction with a residual circuit breaker.
- Don't use tools other than for their intended purpose.
- Follow manufacturer's guidelines as applicable.

FORMAL PROCEEDURE FOR THE USE OF KNIVES AND CHISELS

- Ensure when using a knife / chisel you always keep your hands behind the blade. Ensure that you cut away from your body – NEVER towards yourself.
- Ensure that the position of others is away from the cutting direction.
- Keep the tooling in a sharp condition so you don't have to exert excessive force to cut.
- Always pick up the tool by the handle.
- Always ensure the tool is stored safely where a sharp edge cannot cause injury.
- Only use the tooling for its intended purpose where possible.

4 MANUAL HANDLING>

All modular wall sections are a two man lift. Lift correctly. **STOP & THINK.** Plan the lift.

Where is the load going to be placed?

Use appropriate handling aids if possible.

Do you need help with the load?

Remove and obstructions such as discarded wrapping materials. For a long lift, such as floor to shoulder, consider resting the load mid-way on a table or bench in order to change grip.

PLACE THE FEET.

Feet apart, giving balanced and stable base for lifting. Leading leg as far forward as is comfortable.

ADOPT A GOOD POSTURE

Bend the knees so that the hands when grasping the load is as nearly level with the waist as possible. Don't kneel or over flex the knees. Keep the back straight and lean forward slightly

over the load if necessary to get a good grip. Keep the shoulders level and facing in the same direction as the hips.

GET A FIRM GRIP

Try to keep the arms within the boundary formed by the legs. The optimum position and nature of the grip depends on the circumstances and individuals preference, but it must be secure. A hook grip is less fatiguing than keeping the fingers straight. If it is necessary to vary the grip as the lift proceeds, do this as smoothly as possible.

DON'T JERK

MOVE THE FEET

KEEP CLOSE TO THE LOAD

PUT DOWN, THEN ADJUST

If precise positioning of the load is necessary, put it down first, and then slide it into the desired position.

TEAM LIFTING

It is important team members are physically evenly matched. One person should take responsibility and co-ordinate their actions.

ADEQUATE VISION

Clear vision may mean multiple trips with smaller loads, but it is safer.

5 CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH.

- Pointing mortar & concrete

Portland and other cements when mixed with water can cause skin irritation. If eye contamination occurs wash out with copious amounts of water and if irritation persists seek medical advice.

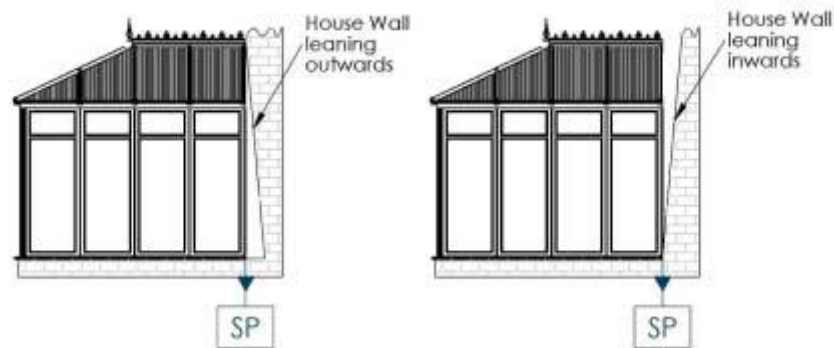
-Bond and Seal Brick Adhesive and Sealer.

You are advised to follow the guidance on the packaging.

FH BASE ASSEMBLY INSTRUCTIONS

Base Setting Out

This section explains the necessity to ensure that your base is assembled in the correct position from the parent wall. Any discrepancies should be noted and measures taken to adjust as necessary.



The wall(s) you are going to fix the conservatory against must be of sound construction and flat. The wall needs to be free from coverings such as cement render, pebble dash or cladding. If any of these are present they **MUST** be removed until you are back to bare brick/stone.

Setting Out

As the conservatory will need to be built at 90° to the ground it is important to check the angle of the wall you will build your conservatory against. If the wall leans outwards, a plumb line should be fixed to the highest point where the roof will touch the wall. Where the plumb line meets the ground is where the base should be set out from (SP). The gap will need to be filled with packers (not supplied) so that the wall bar can be attached vertically. The base and dwarf wall size will need to be started from

this point. If the wall leans backwards the base should be started against the wall (SP). The gap in this situation is at the top therefore packers (not supplied) will be needed to ensure the wall bar is attached vertically.

Please note: Any additional trims to cover large gaps are not included with the base or conservatory and should be purchased separately.

*NB: Please note in diagrams SP refers to the **S**etting out **P**oint.*

***For Technical Assistance Please Call:
01432 266507***

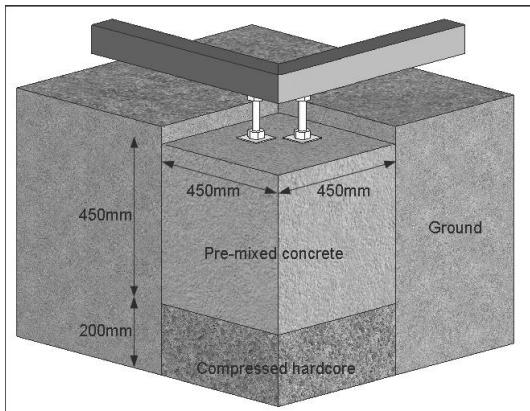
FH BASE ASSEMBLY **INSTRUCTIONS**

A) PREPARING THE SITE

The modular base can be installed on an existing patio or concrete area providing the foundations are adequate. If the foundations are not adequate or the base is to be installed on bare ground, then a concrete pad is required under each adjustable leg, except on the rear sill section, which are non-load bearing.

Refer to concrete pad layout plan.

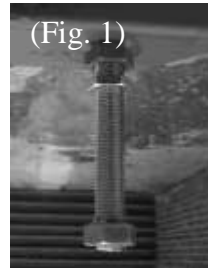
For each pad dig out a hole, 450mm square x 450mm deep. *(It may be necessary to check with local building regulations)* If the base of the hole is not firm it will be necessary to dig deeper until you reach firm ground. If this is the case fill the bottom of the hole to within 450mm of the top with well compacted hardcore. Fill holes with concrete to level specified on the enclosed plan.



Concrete Mix: 1 part cement, 2.5 parts concreting sand and 5 parts 10mm gravel. Mix together thoroughly. Slowly add clean water, mixing continuously to make the mix workable. Too much water can weaken the mix. Alternatively use pre-blended concrete to BS 5835 Part 1. You will need 9 no. x 25 Kg. bags for each 450mm cube. Use as instructed on the bag.

Leave the pads to harden for two days. In winter months they must be protected from frost, by covering with polythene or sacking.

B) ASSEMBLY



(Fig. 1)

Refer to steelwork layout plan.

1) Screw lock nuts onto all adjustable legs. (See Fig. 1)

2) Screw adjustable legs into the nuts welded onto

the underside of the back sill section. Position the back sill section against the house wall in the required position (the ends will be 20mm short of the overall base size). Rest the legs on something firm to prevent them sinking. Adjust the jacking legs to the required level; remember to allow 18mm for the thickness of the floorboards plus the floor finish that you intend to use.

Pilot drill through the fixing holes using a 10mm masonry drill bit. (See Fig.2)



Fig.2

Remove the sill section and re drill pilot holes to a depth of 70mm using a 16mm masonry drill bit. Insert the rawl bolts into the holes and remove the bolts. Replace the back sill section, insert bolts and tighten using a 17mm socket.

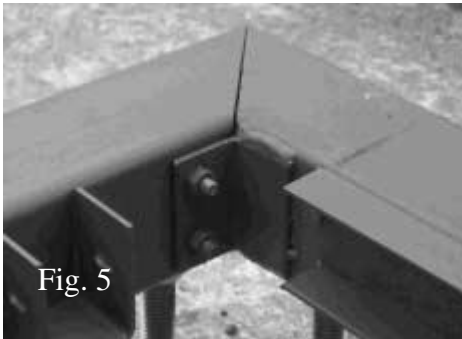


Fig.3

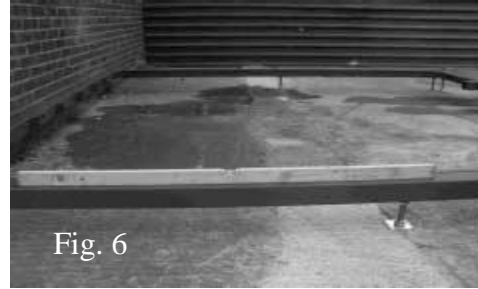
3) Assemble fixing down plate and legs (see Fig.3), and screw into the nuts welded onto the underside of the two side sections. Fit to the rear section by inserting the pre-welded internal flange inside the rear sill section. Then push back towards the wall until the forward projecting bolts locate in the corner fixing bracket. Fix with nut supplied but do not fully tighten at this stage. (See Fig.4)



4) Screw adjustable legs into the nuts welded onto the underside of the front sill section. Note; Use only one fixing down leg assembly on each concrete pad. For second legs landing on a pad use standard legs as Fig. 1. Attach to the side sill sections in the same manner. (see Fig.5)



5) Position the load bearing plates (75mm square washers) under all standard legs except those on the back sill. Working your way around, adjust the legs to the required height and level using a spirit level. Check that the base is square and tighten all joints. Re-check levels and tighten lock nuts on the jacking legs. (see Fig. 6) Fix leg assembly down to concrete pad using M10 x 50mm sleeve anchors supplied. Only one fixing per fixing down plate. Pre-drill concrete using 10mm masonry bit.



6) Slot the floor joists into the 'u' support brackets, and secure using M6 x 60 bolts and nuts supplied. Tighten with 10mm spanner. If the base is a shaped design the floor joists will differ in length depending on their position. Intermediate supports should be fitted and the legs adjusted and locked at this stage. Legs should be placed on something firm to prevent sinking. Eg. Paving slab. (See Fig. 7)



C) Fitting Brick Skirt

(For plain skirts see below)

Refer to skirt plan.

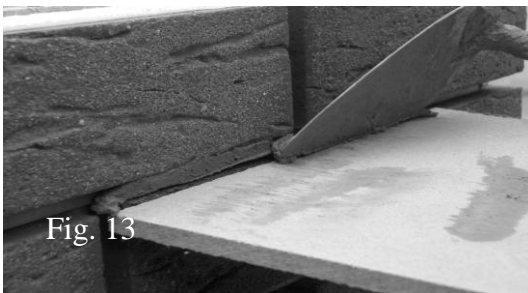
1) Lay out the skirt sections in the order they are to be fitted. The panels are numbered to correspond with the layout plan, and the brick slips are flush to the top edge. Fit panels so the top edge, lines up with the top edge of the steel base sills. The ends of the panels that correspond with an external corner of the base frame must line up with the edge of the steel base frame. Do not overlap other panels on the corners

2) When you are happy that everything is correctly positioned, fix in place with self drilling screws supplied. Fix where brick slips are still to be fitted and through perpendicular mortar joints if extra fixing is require. (see Fig. 9)



3) Use adhesive supplied to fix straight and corner brick tiles in place to complete joins. You will need some 10mm spacers to position the brick slips. Press brick slips firmly into place.

4) To point the joints, mix the mortar supplied to a smooth paste (Be careful not to add too much water). Fill completely the joints around the bricks. (see Fig. 12 & 13)



Remove the surplus mortar with a flat trowel before initial curing takes place. Allow the mortar to dry until fairly firm. It should have a dull finish, be moist but not wet and somewhat gritty. Use a curved pointing tool to finish off the joint and remove any remaining mortar with a soft brush. (see Fig 14 & 15)



Caution: Do not tool the joint too soon. Tooling early will create a creamy surface on the mortar, and colour will not match the existing.

Fitting Plain Skirts.

Cut to length as required and fix lining up the top edge to the top of steel frame. Ensure the required overlap on the external corners and fix to steelwork using the self drilling screws supplied. Air Vents (not supplied) should be fitted into plain skirts to ensure adequate air flow beneath the floor.

It is advised to fit the conservatory at this stage, before fitting the under floor insulation and floor boards.

Please follow your conservatory supplier's instructions. If conservatory sills are to be secured to the base sill, use the 60mm long self drilling screws provided. Seal around the underside of the conservatory sill with mastic.

Fitting Under Floor Insulation.

1) Place top hat insulation securing brackets at suitable intervals over the floor joists. (see Fig.16)



2) Cut to size and lay the polystyrene to fill the gaps between the joists. The polystyrene can be cut using a long bladed Stanley knife or a wood saw. (see Fig 17)

3) Start laying the floor boards from the left hand side of the conservatory, looking towards the house. Lay the sheets the correct way up as marked. Use the off-cut from the last run to start the next. Always trim the boards to ensure the joints fall on a joist. If your floor spans manholes or drains, it is advisable to glue the joints with a waterproof wood glue. Secure to the floor joists using the 38mm self drilling screws supplied. (see Fig. 17)



The floor is now ready for finishing with your choice of covering.

For Technical Assistance Please Call: 01432 266507