The Outside, **Inside**

CONSTRUCTION GUIDE

For Garden Tunnels
14ft Wide – and – 14ft Wide Premier Base Rail Option

Thank you for purchasing a 'Premier' polytunnel.

Please take the time to carefully read through this Construction Guide before you head out into your garden and begin building your 'Premier' polytunnel.

A polytunnel is not a difficult structure to construct, but the task at hand should not be taken lightly – After all, this is a building that must stand up to extreme weather conditions year after year. This really is a two person job, so why not invite a friend to join you and make a weekend of it.

The following is a Guide to the successful construction of your polytunnel. If you follow this Guide, you will have many years of growing pleasure from your polytunnel with very little or no maintenance. Please use the Checklist supplied with your order, together with this Guide, to help you identify the different parts of your polytunnel.

To help you identify the different steel tubes, the item codes on the Checklist relate to the diameter and length of tube and how the ends are formed, eg; **"28/1530PP"** is a 28mm diameter steel tube, 1530mm long, with plain ends.
"PS" at the end of the code would indicate the tube had one end plain and one end swaged.
"FP" would indicate the tube had one flattened and punched end and one end plain.
"FS" would indicate the tube had one flattened and punched end and one end swaged.
"FF" would indicate that both ends are flattened and punched.
"A" would indicate that the flattened ends are offset (at an angle) to each other.

If you are unsure or confused about any aspect of construction, please feel free to contact us via e-mail at info@premierpolytunnels.co.uk or by telephone on 01282 811250.
Premier Polytunnels are proud to be the **ONLY** polytunnel supplier to offer an out of hours Construction Advice Service, available until 9pm, 7 days a week.

We have covered some of the polytunnel options within this Construction Guide that may not relate to the polytunnel and extras/additions you have purchased. Please ignore any sections which do not apply.

CONTENTS

INTRODUCTION

"Picture this...."

Below is a simple outline of what you should end up with once you have completed your project and is something to bear in mind while constructing your polytunnel.

A polytunnel is a series of hoops placed in line on **Foundation Tubes.**

A **Ridge** tube is suspended under the hoops at the centre point and runs the full length of the polytunnel.

Four diagonal tubular **Stabilisers** are placed one at each corner.

A timber **door/end frame** is fixed central at each end.

Base Rails run around the outside of the framework at ground level and the cover is fixed to these rails.

Polythene is placed over the framework and fixed around the door/end frame. The polythene cover is then buried into the trench.

OPTIONAL EXTRAS/POLYTUNNEL ADDITIONS - If ordered:

Anchor Plates clamp to the base of each **Foundation Tube** in a 14 inch hole, before soil is compacted back over them to prevent the polytunnel framework from lifting or sinking.

Base Plates replace foundation tubes when the polytunnel is being placed on a hard standing base.

Crop Bars are horizontal tubes placed across each intermediate hoop at roughly head height.

Triple Ridge bars are two extra ridge bars that provide stability down the length of the polytunnel.

Storm Strengthening Kits/Collars are placed around each hoop where the sections join. This adds strength to the joint.

Staging supports are placed down one or both sides of the polytunnel and allow for a work top to be placed on top.

Side Rails run around the outside of the framework 1 metre above ground level on one or both sides. The cover is fixed to these rails. **Sides Rails** include ventilation net.

Anti Hot Spot Tape is a foam tape that runs over each hoop and protects the cover from the steel.

Ventilation Screens allow you to cover the ventilation net when **Side Rails** are bought.

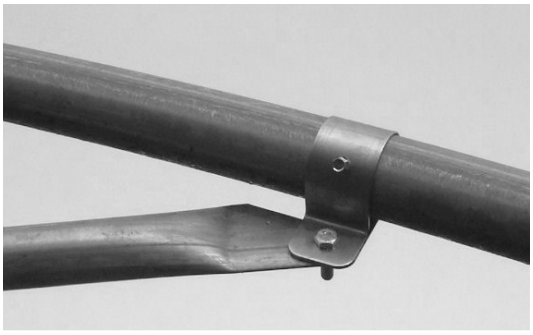
Sliding Doors replace standard hinged doors and allow for extra space on the inside of the tunnel.

USE OF ‘P’ CLIPS

The image below demonstrates the **double** ‘P’ Clip method used to fix the Ridge/Triple Ridge.

The following images show how a Corner Stabiliser, Crop Bar, Staging Support or any tube flattened and punched at the end attaches to a ‘P’ Clip.

NOTE: ‘P’ Clips should always be placed around a hoop so that the leg of the P is to the inside of the polytunnel – That is to say, as far away from the polythene cover as possible.



*****PLEASE NOTE: When assembling your polytunnel, no screws, bolts, ends of tubes, etc, should protrude beyond the hoops as these will cause damage to your cover*****

TOOLS REQUIRED

*****WARNING: PRODUCTS MAY CONTAIN SHARP EDGES.**
ALWAYS WEAR GLOVES***

Here is a list of tools required to complete the construction of your polytunnel:

Tape measure	Spade	Large hammer	Claw hammer
Spirit level	2x 13mm spanner	Marker pen	Battery drill
9mm drill bit	5mm drill bit	Philips screwdriver	Wood saw
String line	Sharp knife	Timber drift (small offcut of timber)	

SITE

Your construction site should be clear and reasonably level from side to side. Approximately 6 inch out of level across the width of the tunnel can be taken up by adjusting the Foundation Tubes of your Polytunnel **(Fig1)**.

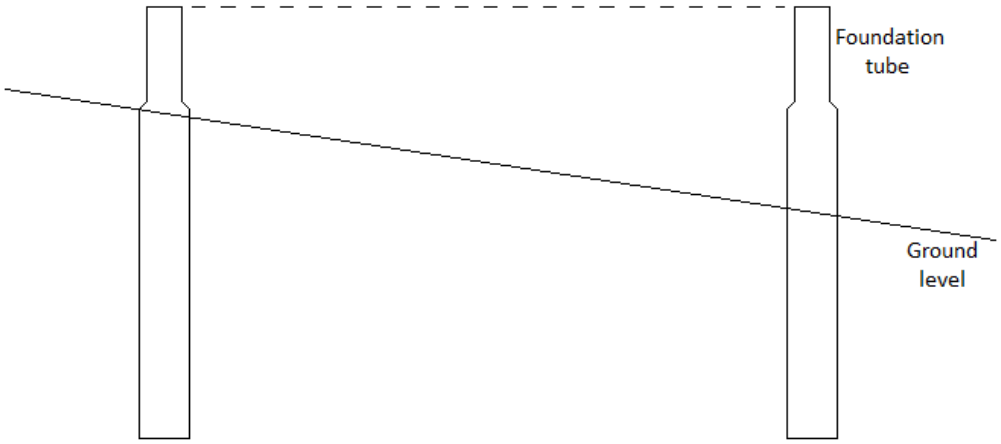


Fig1

A slope down the length of the tunnel does not have to be taken into account as your polytunnel can be built straight onto this slope with the framework placed at the vertical **(Fig2)**.

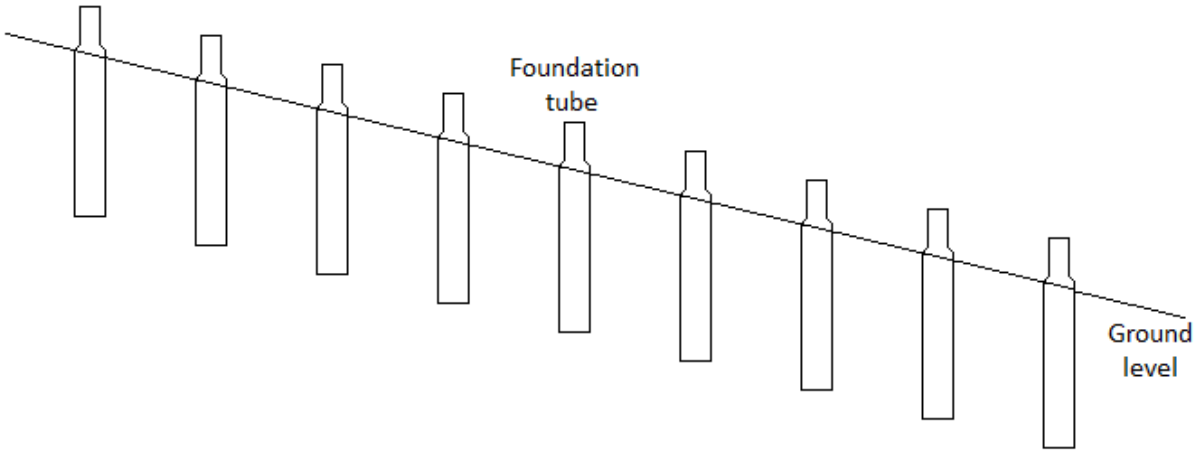


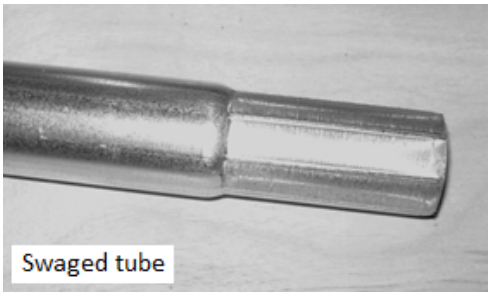
Fig2

FOUNDATION TUBES

*****IMPORTANT – Protect the ends of tubes from damage when driving them into place by using a timber drift (a small offcut of timber)*****

Foundation Tubes are driven into the ground at each end of each hoop.

Choose a corner of your polytunnel to be a fixed point from which all measurements will be taken (it is advised that this fixed point is the highest corner of the tunnel on any sloping site), drive in a foundation tube using a timber drift to protect the end, leaving only the swage protruding above ground.



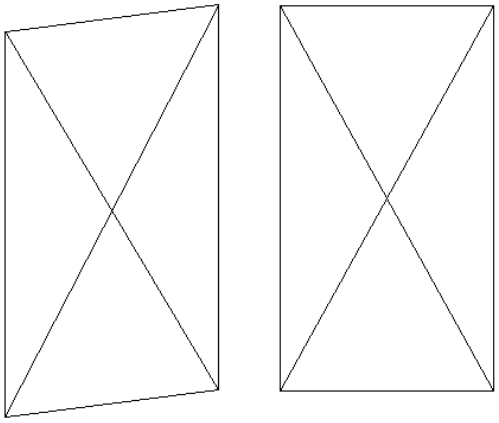
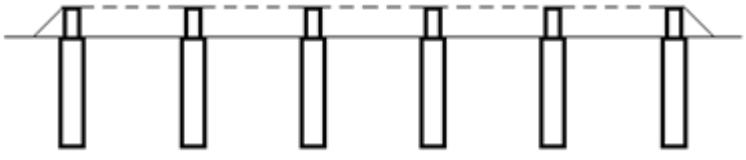


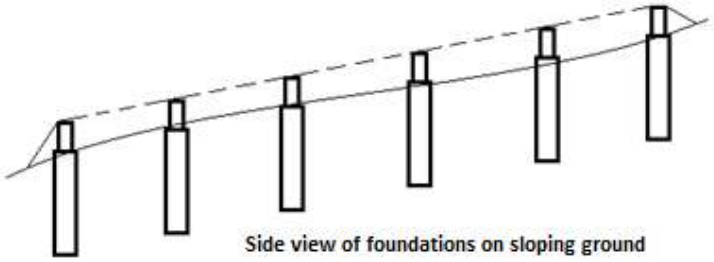
Fig3

Mark out the remaining corners, but do not drive in the foundation tubes yet. The measurements for these will be the width and length of your polytunnel. To check for square, measure from corner to corner **(Fig3)** – This measurement should be the same, but if not, simply adjust the tubes until correct.
Once you are happy with the positioning drive in the foundation tubes. Make sure the foundation tubes are level across the 14ft width.

Mark out the position for the remaining foundation tubes down the length of the polytunnel at 6ft spacings on standard 14ft wide polytunnels or at 5ft spacings on 14ft wide PREMIER polytunnels, and drive in the foundation tubes. Use a string line or straight edge to check the tops are level and the tubes are in line.



Side view of foundations on level ground



Side view of foundations on sloping ground

*****If Anchor Plates have been purchased, please see the 'Anchor Plates' section on page 7 before driving in the foundation tubes*****

ANCHOR PLATES

Anchor Plates replace the need for concrete in soft ground.

After marking out the position of all the Foundation Tubes **WITHOUT** driving any tubes in, dig a hole 12 inches square and 14 inches deep at each point. You can now drive the Foundation Tubes into the holes, making sure to check all measurements and levels **(Fig4).**

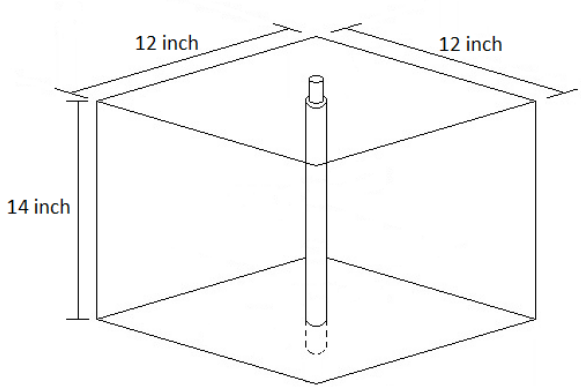


Fig4

Fig5

Place an anchor plate clamp **(Fig5)** around the each of the foundation tubes at the bottom of the holes **(Fig6)**.

Fig6

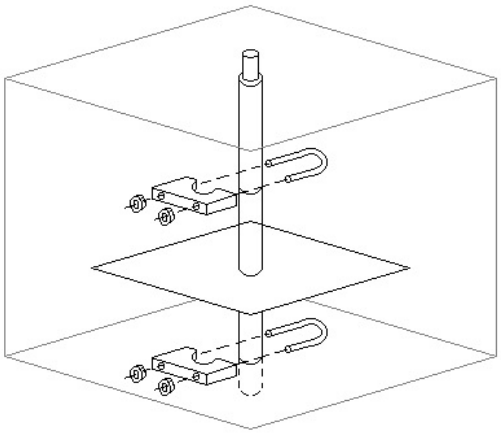


Fig7

An anchor plate slots over the tubes to rest on the clamps and another clamp is tightened on top of the plates to hold in position **(Fig7)**.

Fig8

The soil is placed back in the holes and heeled down flat with the ground level **(Fig8)**. Re-check all measurements.

BASE PLATES

Tools required:		
Hammer drill	14mm masonry bit	13mm spanner/ratchet

If you are placing your polytunnel on a concrete base you will require base plates **(Fig9)** which replace foundation tubes.

Please use the same method of measuring as for foundation tubes on page 6.

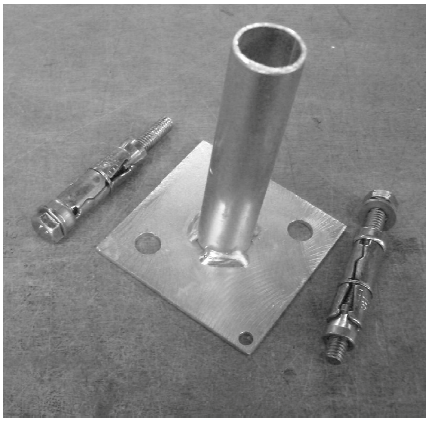


Fig9

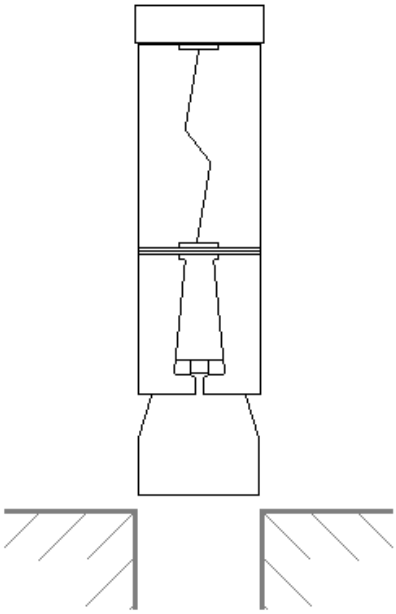


Fig10

When securing the base plates to the ground, drill two 14mm holes (70mm deep minimum) into the footing through the two base plate holes.

Insert the loose bolt sleeves into the holes until flush with the ground. Please make sure to insert the sprung end of the sleeve first **(Fig10).**

Bolt the base plates onto the ground by tightening the loose bolts through the holes on the base plates and into the sleeves.

The door posts are secured at the base with an angle bracket **(Fig11).**
These require another 14mm hole to be drilled into the footing (70mm deep minimum). Bolt these brackets down as you would base plates but with only one loose bolt.
The door posts then bolt to this bracket using the bolt supplied with the base rails.

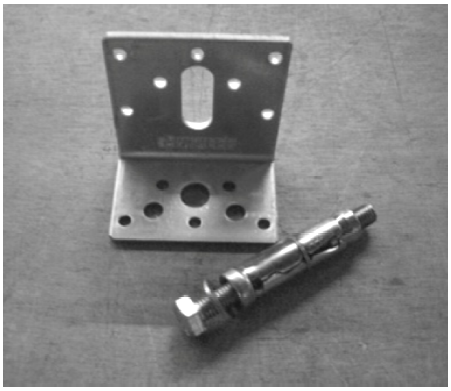


Fig11

HOOPS

Hoops come in four sections – two outer legs and two inner hoops. These sections should be slotted together on a flat base and the joints held together using a self drill screw which should be 20mm away from the joint **(Fig12)**. Do not fix the centre joint at this stage.

Fig12

Self Drill Screw

Lift the hoops into position on the foundation tubes. The swaged half of the inner hoop should be kept to the same side of the polytunnel (left side or right side). Make sure the screws on the end hoops face the inside of the polytunnel **(Fig13)**.

Fig13

It is not necessary to screw the hoops onto the foundation tubes at this stage as the screws will conflict with base rail fixings at a later stage.

*****Please note: Self drill screws should be held in the nut driver provided or can be held directly into a drill chuck. They will drill their own hole and tap themselves into position. Do not over-tighten*****

RIDGE – and – TRIPLE RIDGE KIT

The centre ridge bar (standard on all polytunnels) is supplied in 6ft sections. One ridge starter with plain ends and one or more ridge extensions with one swaged end. **Please Note:** On a PREMIER 14ft Polytunnel the ridge is supplied in 5ft sections

Place a 'P' Clip around the top centre of each hoop. The central joint can be used as a guide.

On the end hoops the leg of the P should be to the inside edge of the hoop and should face down the length of the tunnel.
Place a 'P' Clip around one end of the starter ridge. Bolt this starter ridge up to the 'P' Clip on one of the end hoops **(Fig14).**

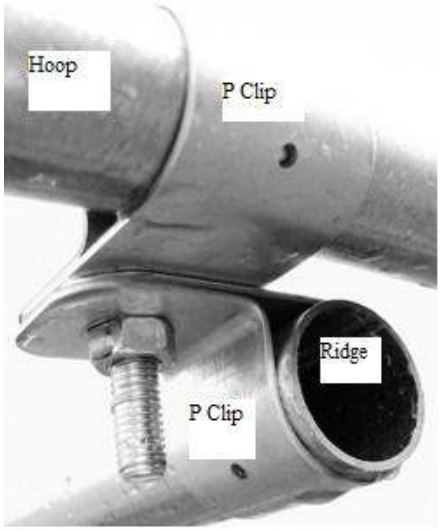


Fig14

Adjust the starter ridge until the end is located half way through the end hoop **(Fig15)**.

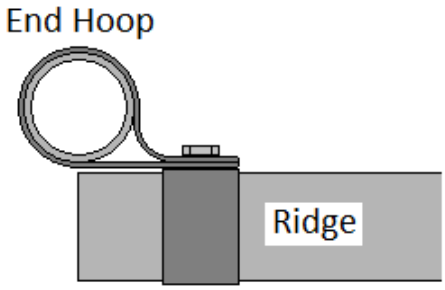


Fig15

With the starter ridge suspended from the hoop slide a ridge extension into the starter. Place a 'P' Clip around the ridge starter/extension wherever it crosses a hoop and bolt up to the 'P' Clip on the hoop. Do not tighten this bolt and nut until a later stage.

Keep adding ridge extensions and 'P' Clips whenever they cross a hoop until you reach the opposite end of the polytunnel. Bolting them up but not tightening.

Once a full ridge has been suspended loosely, measure the spacings for the hoops using the end with the starter ridge as the starting point. Adjust the ‘P’ Clips along the ridge until all the hoops on standard 14ft wide polytunnels are at 6ft spacings, or on 14ft wide PREMIER polytunnels are at 5ft spacings **(Fig16)**.

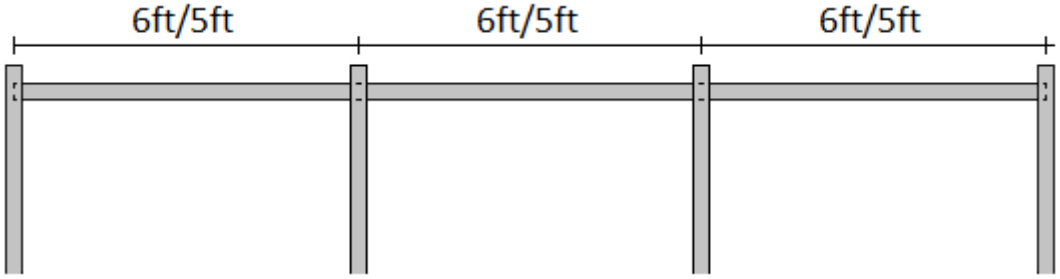


Fig16

Adjust the ‘P’ Clips on the hoops so that the ridge runs in a straight line down the tunnel, as close to centre as possible. Once happy with the positions, tighten all the bolts and nuts and secure the ‘P’ Clips onto the ridge and the hoops using self drill screws.
Secure the ridge sections together using self drill screws located approximately 2cm away from the joins.
Fit a plastic end cap in each end of the ridge.

Completed centre ridge.

Triple Ridge Kits: These side ridge bars are identical to the centre ridge and should be assembled using the same method. These side ridges should be located close to where the outer legs meet the inner hoop. **Please Note:** If you have ordered a crop bar kit or a storm strengthening kit, you should assemble these items prior to your side ridges in order that your ridge bars can avoid these items.

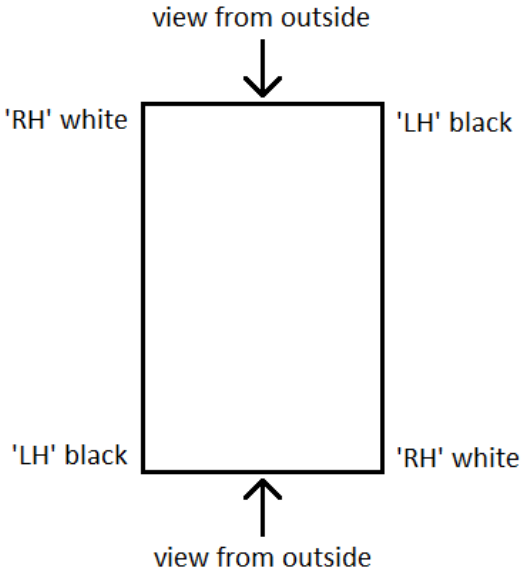
CORNER STABILISERS

These tubes are placed to form a triangle at each corner of the polytunnel **(Fig17)**.

Fig17

Stabilisers are right and left handed for opposite corners of the polytunnel and have their flat ends offset to accommodate the curve of the end hoop – The 'RH' pair are painted WHITE at the end and the 'LH' pair are painted BLACK to differentiate between them.

Note: Right and left hand should be viewed from the outside of the polytunnel looking at the end.



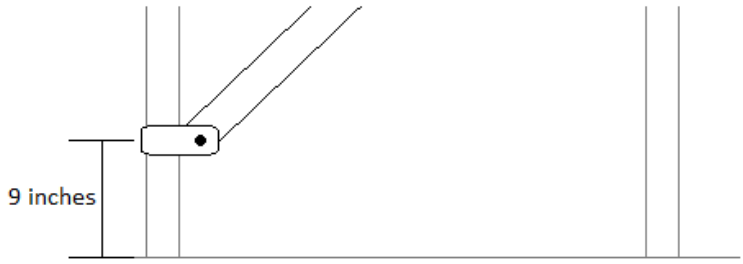


Fig18

Place a 'P' Clip around the second to end hoop with the leg of the P towards the inside edge of the hoop and pointing towards the end hoop. This 'P' Clip should be located 9 inches up from the ground. Bolt one end of a corner stabiliser to this 'P' Clip but do not tighten **(Fig18)**.

Place a ‘P’ Clip around the end hoop, again with the leg towards the inside edge and pointing towards the second hoop. Bolt the corner stabiliser to this ‘P’ Clip but do not tighten.

Check the ‘P’ Clip on the second to end hoop is still located 9 inches up from ground level, if it has moved then simply slide the clip up or down the hoop until back in position. Tighten this ‘P’ Clip and secure with a self drill screw making sure the head of the screw does not protrude past the hoop.

Using a spirit level to check the end hoop for vertical, slide the ‘P’ Clip up or down the hoop until in the correct position. Tighten and secure the ‘P’ Clip using a self drill screw making sure the head of the screw does not protrude past the hoop **(Fig19)**.
The predrilled holes in the ‘P’ Clip may not be in a suitable location for the self drill screw, but the screw will make its own hole in a place suitably clear of the polythene.

Fig19

Repeat this process at each corner of the polytunnel.

STORM STRENGTHENING KIT

This is a very simple method of adding strength to the weakest part of the hoop. Simply bolt a ‘P’ Clip around any joints where an outer leg meets an inner hoop (acting as a collar), making sure that the leg of the P will not interfere with the polythene cover. Secure the ‘P’ Clips with a self drill screw, making sure the head of the screw does not protrude outside of the tunnel.

Storm strengthening collar

DOOR RAILS – and – CROP BARS

Door rails and crop bars are identical items but door rails are **supplied as standard** on 12ft wide polytunnels and these are placed above head height across the end hoops.
Crop bars, however, are an optional extra/polytunnel addition and are placed on all intermediate hoops.

Completed crop bars and supports fixed to all intermediate hoops

Start by fixing a door rail/crop bar horizontally to the hoop – Two 'P' Clips are placed around the hoop, one either side of the centre ridge.
Bolt a door rail/crop bar to these 'P' Clips but do not tighten **(Fig20)**.

Fig20

Using a spirit level to check the door rails/crop bars are level horizontally, slide the 'P' Clips along the hoop until in the correct position. Tighten and secure the 'P' Clips with a self drill screw making sure the head of the screw does not protrude past the hoop **(Fig21)**.

Fig21

Fix the short door rail/crop bar support to the centre of the door rail/crop bar using a ‘P’ Clip **(Fig22).**

Fig22

Using a ‘P’ Clip around the centre ridge, bolt the other end of the support up to the ridge but leave the ‘P’ Clip loose **(Fig23).**
Adjust the support along the ridge until the door rail/crop bar doesn’t dip or rise down its length. Once happy tighten the ‘P’ Clip to the ridge and secure with a self drill screw **(Fig23)**.

Fig23

*****IMPORTANT** – When positioning the door rails the ‘P’ Clips should be set so that the door rail will be located inside the polytunnel.

STAGING SUPPORTS

Using a flat surface, assemble your staging legs. These consist of a 750mm long top that is flattened at each end, and a 750mm long leg that is flattened at one end and plain at the other.

Bolt one end of the top to the flattened end of the leg and tighten.

Place a 'P' Clip around the top and one around the leg. The 'P' Clips should be facing inside the staging leg **(Fig24).**

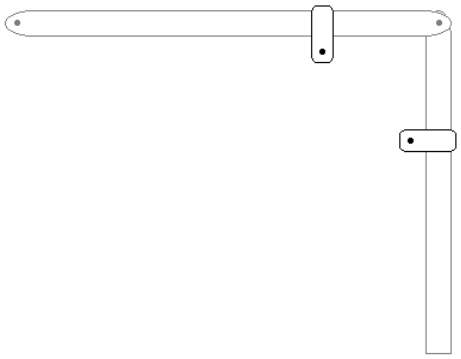


Fig24

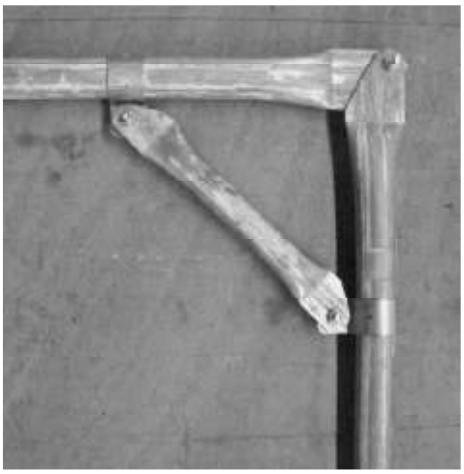


Fig25

A 28mm diameter, 300mm long diagonal brace that is flattened at each end is fixed to these 'P' Clips across the corner of the staging leg. Loosely attach this brace to the 'P' Clips.
Adjust the 'P' Clips along the top and the leg until they are at a right angle to each other. Tighten and fix the 'P' Clips with a self drill screw **(Fig25)**.

A plastic end cap is inserted into the bottom of the leg.

Place a 'P' Clip around the hoop and bolt the staging leg to this 'P' Clip, check the staging leg for level horizontally and vertically and once in position tighten and fix the 'P' Clip to the hoop **(Fig26)**.

Fig26

We suggest that you fix the two end staging supports first. These should angle in slightly from the end of the polytunnel to avoid the cover.
Position the centre staging legs and align them with the end legs. Use a hard pad to stand the leg on when placing the support on a soft base – This will help prevent the leg from sinking.

BUILDING THE DUMMY DOOR / END FRAME

3 inch x 2 inch timber is used for the end frame.

When the polytunnel is to be placed on soil/soft ground

Using a flat surface or bench take the 3 inch x 2 inch x 2.4m end frame posts and measure 12 inches down from one end of each post and make a mark.
From this mark measure a further 34 inches down the post and make another mark **(Fig27).**

Fig27

When the polytunnel is to be placed onto concrete/hard standing

Using a flat surface or bench take the 3 inch x 2 inch x 2.4m end frame posts and measure 23 inches down from one end of each post and make a mark.
From this mark measure 34 inches down the post and make another mark.
From the second mark measure a further 34 inches down the post and make a third mark **(Fig28)**.

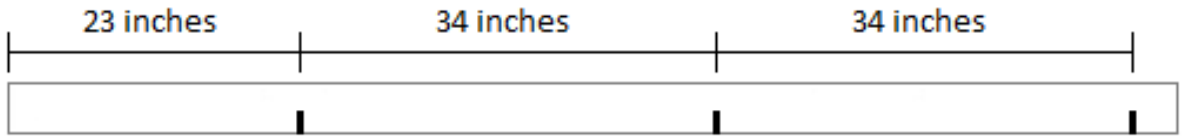


Fig28

Once the post have been marked, insert a pre-cut 3 inch x 2 inch x 713mm timber cross piece between the posts at each of these marks lining the middles up with the marks **(Fig29).**

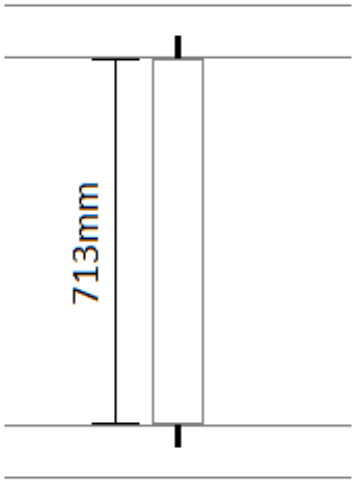


Fig29

To fix the two cross pieces, drill a 7mm hole through the side of each post in line with the marks/centre of each cross piece. Place a 6 inch nail through these holes and nail into the cross pieces **(Fig30).**
A nail plate is fixed across each of the joints on one side only **(Fig31).**

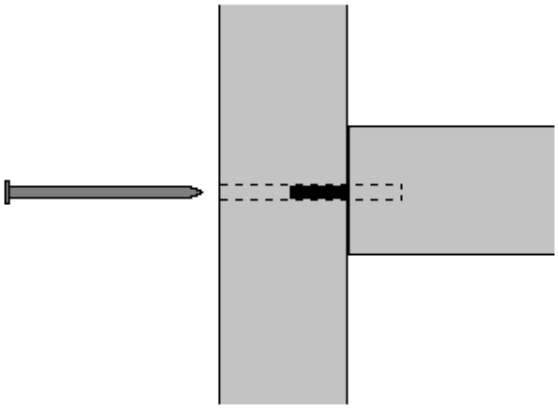


Fig30

Fig31

Tack a net panel to the top half of the end frame on the opposite side to the nail plates, and a polythene panel to the bottom half **(Fig32)**. Get as much tension as possible on the panels – a staple gun comes in handy here.

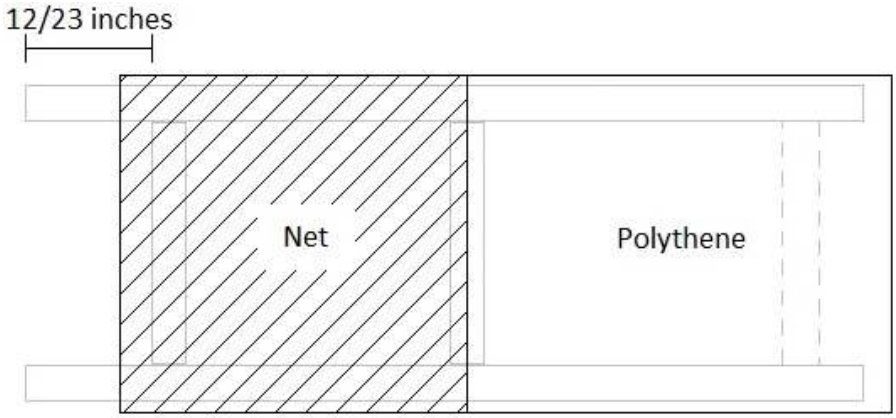


Fig32

Cut a piece of 19mm x 38mm timber batten the full width of the end frame and nail this along the top edge of the first cross piece to trap the net panel – this batten forms the rebate that the cover will be fixed around later.

A nail positioned each side of the joint where the cross piece meets the post will add stiffness to the frame **(Fig33).**

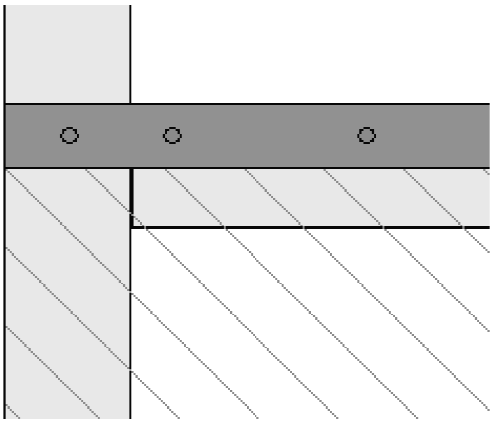


Fig33

Take two full 1.8m lengths of batten and nail these down the outside edge of the posts, butted up to the top batten **(Fig34)**.

*****Please note that this rebate may need to be cut at a later stage in order for the base/side rail to be fixed to the door post, take extra care when doing this*****

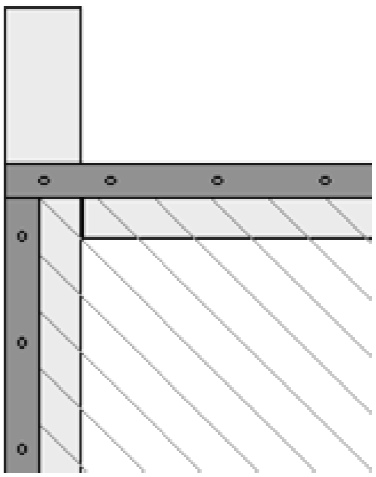


Fig34

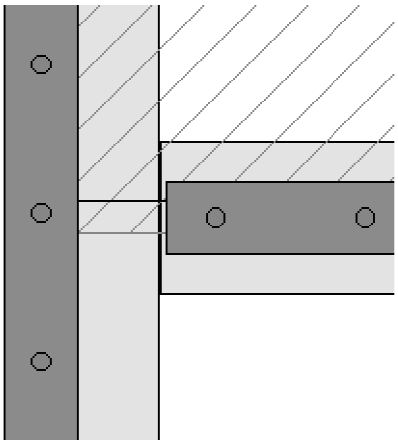


Fig35

Next, nail another batten across the middle of the second cross piece, overlapping both the net and the polythene panels. This batten should be cut down so it does not overlap onto the posts (27½ inches/700mm). This ensures enough space for the main cover and the batten which traps it **(Fig35).**

When the polytunnel is fixed onto hard standing and a third cross piece has been fitted, nail another batten across this third cross piece to hold the polythene panel. This batten should not overlap onto the posts (27½ inches/700mm).

Trim off the excess net and polythene from around the edges.
When the polytunnel is being placed onto soil/soft ground, leave the bottom of the polythene panel untrimmed as this will be buried in the trench along with the bottom of the posts **(Fig36).**

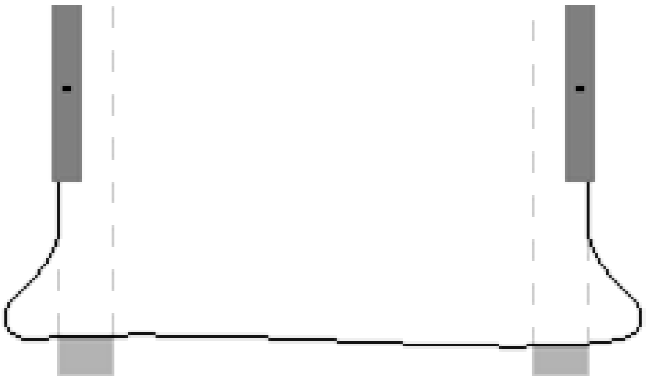


Fig36

HANGING THE DUMMY DOOR / END FRAME

When the polytunnel is to be placed on soil/soft ground

Dig a trench approximately 13 inches deep, 38 inches long and 6 inches wide. This trench should be central under the end hoop to which the end frame will be fixed **(Fig37).**

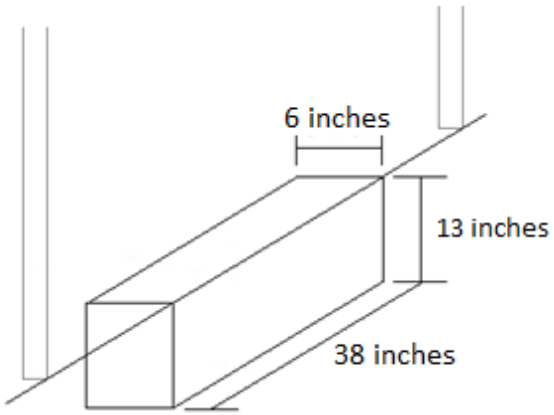


Fig37

Fig38

Hold the end frame in position with the legs and polythene in the trench and the top of the posts against the door rail. Centralise the end frame in the end hoop and check for level vertically. Once in position mark the posts under the door rail **(Fig38).**

Cut the posts on the marks and reposition in the trench with the tops under the door rail. Place two 'P' Clips around the door rail, with the leg of the P down the inside face of the posts. Centralise the end frame and mark through the hole in the 'P' Clips **(Fig39)**.
Drill through the posts on these marks with a 9mm drill. Bolt the 'P' Clips to the posts using a cross head roofing bolt **(Fig40)**. Remember the leg of the 'P' Clip should be down the inside face of the posts with the least amount of timber protruding past the outside of the hoop.

Fig39

Fig40

Check the frame is central to the hoop and level vertically**.** Back fill the trench keeping the end frame in line with the hoop and vertical **(Fig41).**

Fig41

Recheck the end frame for vertical then tighten and secure the 'P' Clips to the door rail with a self drill screw on the inside. You may be unable to use the pre-drilled holes in the 'P' Clip, but the screw will make its own hole in a place suitably clear of the polythene.

When the polytunnel is to be placed onto concrete/hard standing

Do not dig a trench, instead cut the bottom of the dummy door/end frame so that the bottom cross piece sits on the floor.

Centralise the frame in the hoop and then fit to the hoop as with the soil/soft ground option.

Secure the bottom of the door posts to the ground using angle brackets as shown in the 'Base Plates' section on page 8.

DOOR

2 inch x 1 inch timber is used for the doors.

Using a flat surface or bench take the two 2 inch x 1 inch x 1.8m door legs and the 3 cross pieces to which fit between the legs.

Using 6 corner braces and screws, fix a cross piece between the legs at each end and one in the centre. These enable you to build the door square without checking **(Fig42)**.

Fig42

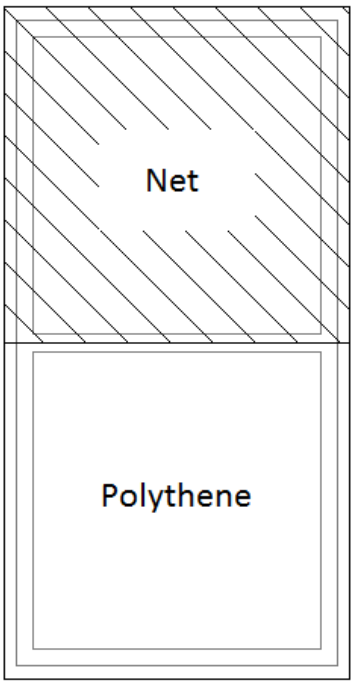


Fig43

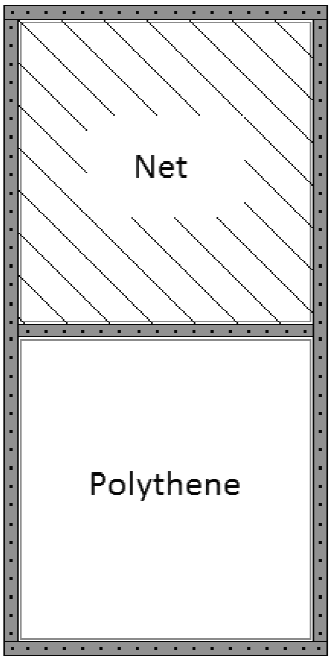
Tack the net and polythene panel to each half of the door and get as much tension as possible on the polythene **(Fig43)** – a staple gun comes in handy here.

Fig44

Cut two pieces of 19mm x 38mm batten the full width of the door and nail these on top of the net and polythene at each end, making sure there is a nail at each side of the joint of the frame. This is important as it gives the door added stiffness **(Fig44)**.

Cut two battens to fit down the door legs and nail in position (nails should be about 4 inches apart).

Cut and fix the final batten across the centre cross piece and trim off all excess material around the edges.



How the door should look once finished

DOOR HINGES

Two, 3 inch butt hinges should be screwed to the inside edge (the opposite side to the batten) of the door approx 9 inches from each end **(Fig45)**. Before screwing the hinges to the door decide which way you want the door to open, remembering that the net panel is going to be to the top, and screw the hinges to the appropriate side.

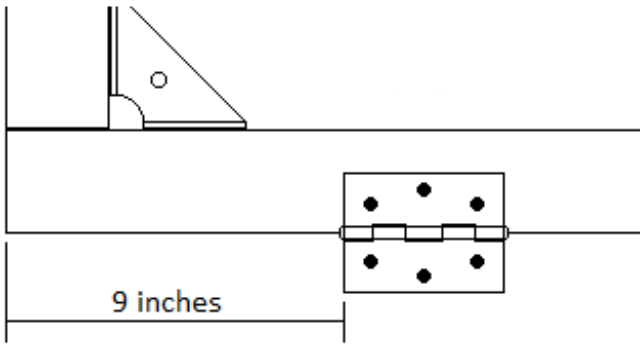


Fig45

HINGED DOOR CATCH

The catch is a simple hook and eye. Screw one half of the catch to the door and the other on top of the door frame cover batten (once covered).

Please note this catch is not attached until the tunnel has been fully covered.

Hook and eye door catch.

SINGLE DOOR FRAME – HINGED DOOR

3 inch x 2 inch timber is used for the door frame.

It may help to place a string line across the end hoop – This can then be used as a line for the door frame, or just use your eye to line the frame with the end hoop.

The door opening will be 32 inches if using the standard door supplied with your kit.

Mark the door rail 16 inches each side of centre (this is where the door posts will fix) and dig two holes approximately 6 inches square and 12 inches deep directly below these marks **(Fig46)**.

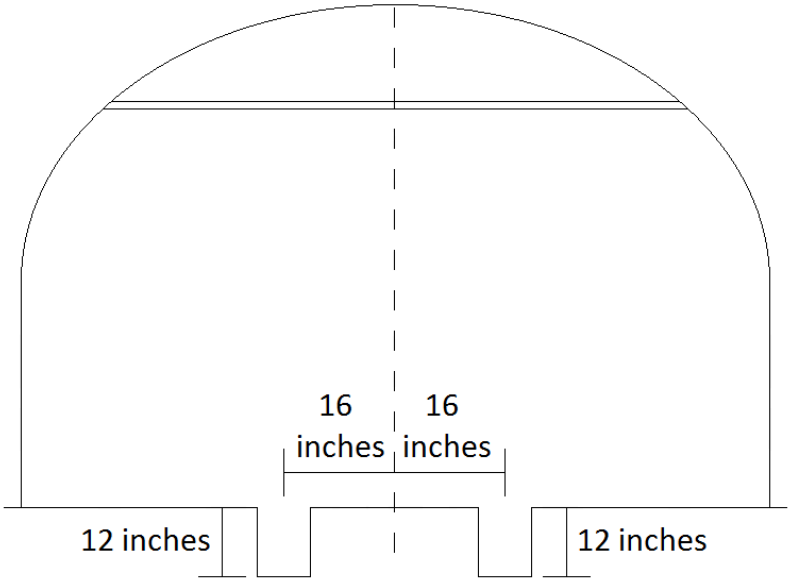


Fig46

Decide which way you want your door to open and position the 8ft door post, which will carry the door hinges, into the hole with the inside edge up to the mark on the door rail. Check the post for vertical and mark the timber under the door rail **(Fig47)**.

Fig47

Cut the post on this mark.

Re-position the post in the hole. Place a ‘P’ Clip around the door rail with the leg of the P down the inside of the post. Drill the post through the ‘P’ Clip and bolt together using a cross head roofing bolt **(Fig48)**. Make sure the inside edge of the post is still in line with the mark on the door rail. Tighten and secure the ‘P’ Clip to the door rail with a self-drill screw.

Fig48

Making sure the post is vertical, backfill the hole until at ground level.

Hang the door on this post leaving adequate room at the bottom for the door to open without catching **(Fig49).**

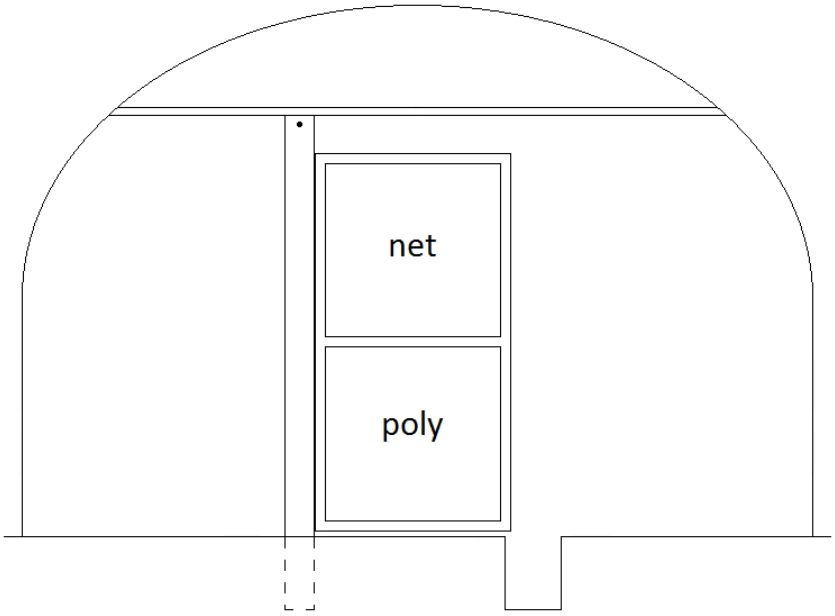


Fig49

Place the second door post in its hole and hold up to the door leaving a gap of approximately 6mm between the door and post (use a 6 inch nail or screwdriver shaft to get this gap). Mark the post under the door rail and cut. Hang the post using the same method as used when hanging the first post and, when you are happy with the position and the gap, secure the ‘P’ Clip and back fill the hole **(Fig50).**

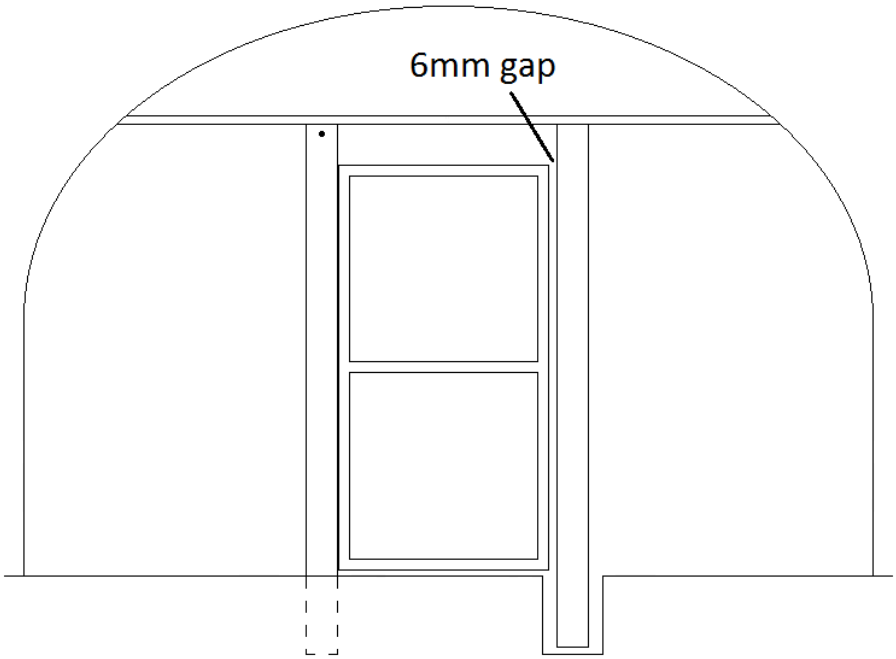


Fig50

The timber lintel supplied should be cut if necessary to fit between the posts.

Drill a 5mm hole through the side of each door post 1½ inch above the top of the door. Sit the lintel in place between the door posts and on top of the door with a 6mm gap once again between lintel and door, fix in place with a 6 inch nail through the previously drilled holes **(Fig51).** Nail a nail plate across each joint on the inside of the polytunnel **(Fig52).**

Fig51

Fig52

*****Please note: When placing a polytunnel on a hard base, Angle Brackets should be used to secure the bottom of the Door Posts, see 'Base Plates' section on page 8*****

DOUBLE DOOR FRAME – HINGED DOORS

3 inch x 2 inch timber is used for the door frame.

It may help to place a string line across the end hoop – This can then be used as a line for the door frame, or just use your eye to line the frame with the end hoop.

The door opening will be 64 inches if using the standard doors supplied with your kit.

Mark the door rail 32 inches each side of centre (this is where the door posts will fix) and dig two holes approximately 6 inches square and 12 inches deep directly below these marks **(Fig53)**.

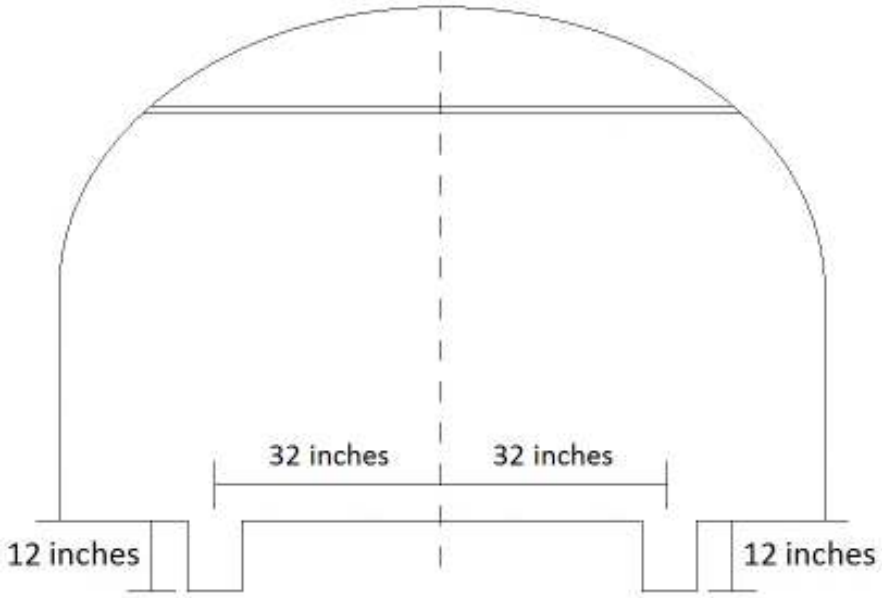


Fig53

Position one of the 8ft door post into one of the holes (preferably the hole on the highest side of the tunnel when on sloping ground) with the inside edge up to the mark on the door rail. Check the post for vertical and mark the timber under the door rail **(Fig54).**

Fig54

Cut the post on this mark.

Re-position the post in the hole. Place a ‘P’ Clip around the door rail with the leg of the P down the inside of the post. Drill the post through the ‘P’ Clip and bolt together using a cross head roofing bolt **(Fig55)**. Make sure the inside edge of the post is still in line with the mark on the door rail. Tighten and secure the ‘P’ Clip to the door rail with a self-drill screw.

Fig55

Making sure the post is vertical, backfill the hole until at ground level.

Hang a door on this post leaving adequate room at the bottom for the door to open without catching **(Fig56).**

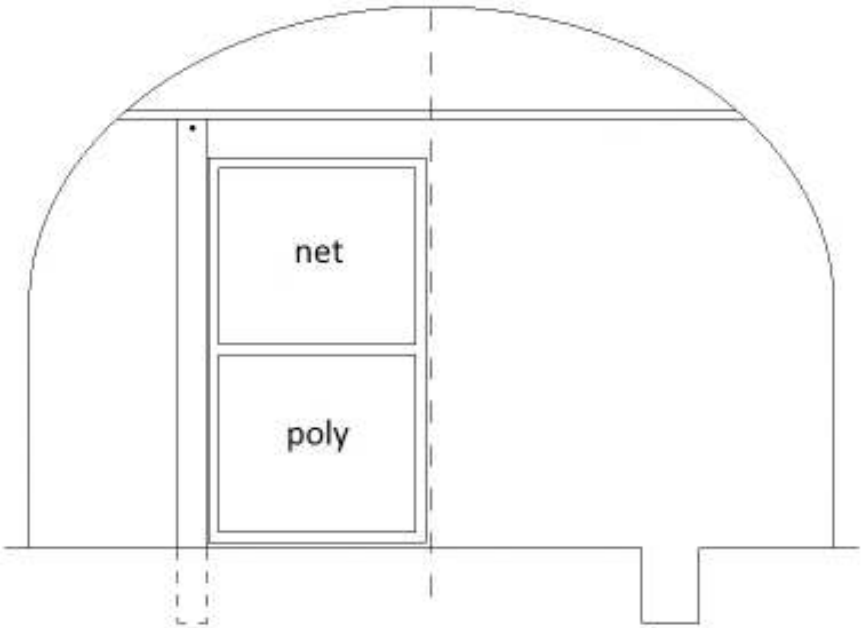


Fig56

Hang the second post using the same method as the first but leave it hanging loose. Hang the second door at a height that coincides with the first door. Adjust the post to get equal spacing between the two doors (use a 6 inch nail or screwdriver as a spacer). When you are happy that the two doors align, tighten and secure the 'P' Clip in place and back fill the hole **(Fig57).**

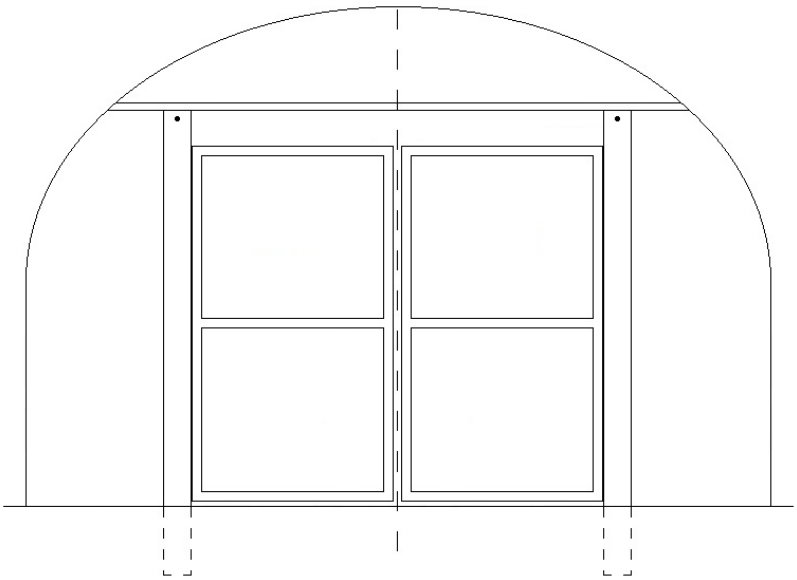


Fig57

The timber lintel supplied should be cut if necessary to fit between the posts.

Drill a 5mm hole through the side of each door post 1½ inch above the top of the doors. Sit the lintel in place between the door posts and on top of the doors with a 6mm gap once again between lintel and doors, fix in place with a 6 inch nail through the previously drilled holes **(Fig58).** Nail a nail plate across each joint on the inside of the polytunnel **(Fig59).**

Fig58

Fig59

*****Please note: When placing a polytunnel on a hard base, Angle Brackets should be used to secure the bottom of the Door Posts, see 'Base Plates' section on page 8*****

SINGLE DOOR FRAME – SLIDING DOOR

3 inch x 2 inch timber is used for the door frame.

It may help to place a string line across the end hoop – This can then be used as a line for the door frame, or just use your eye to line the frame with the end hoop.

The door opening will be 30 inches if using the standard sliding door supplied with your kit.

Mark the door rail 15 inches each side of centre (this is where the door posts will fix) and dig two holes approximately 6 inches square and 12 inches deep directly below these marks **(Fig60).**

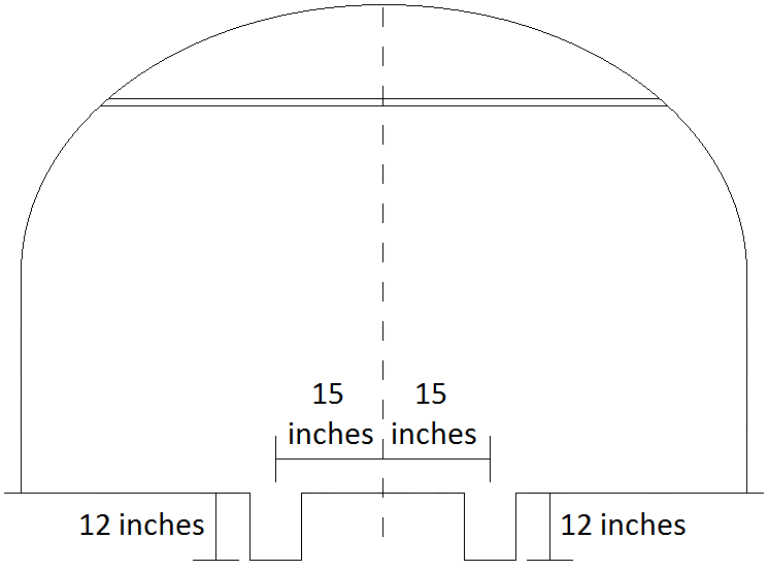


Fig60

Position one of the 8ft door post into one of the holes (preferably the hole on the highest side of the tunnel when on sloping ground) with the inside edge up to the mark on the door rail. Check the post for vertical and mark the timber under the door rail **(Fig61).**

Fig61

Cut the post on this mark.

Re-position the post in the hole. Place a ‘P’ Clip around the door rail with the leg of the P down the inside of the post. Drill the post through the ‘P’ Clip and bolt together using a cross head roofing bolt **(Fig62)**. Make sure the inside edge of the post is still in line with the mark on the door rail. Tighten and secure the ‘P’ Clip to the door rail with a self-drill screw.

Fig62

Making sure the post is vertical, backfill the hole until at ground level.

Place the second door post in its hole. Mark the post under the door rail and cut on the mark. Hang the post using the same method as used when hanging the first post but leave the ‘P’ Clip loose. Using the pre-cut timber lintel as a spacer to make sure the posts are 30 inches apart, backfill the hole **(Fig63).**

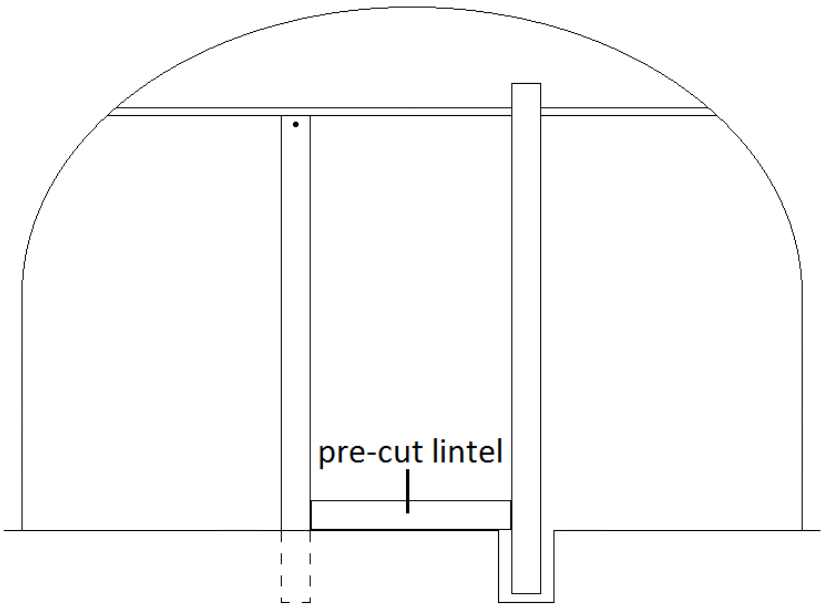


Fig63

It is important that the timber lintel is the correct height so that the door is free to slide without leaving a large gap at the bottom.

The measurement from ground level to the ***underside*** of the door frame lintel should be 73 inches **(Fig64)** – this will leave a gap of 1 inch under the door.

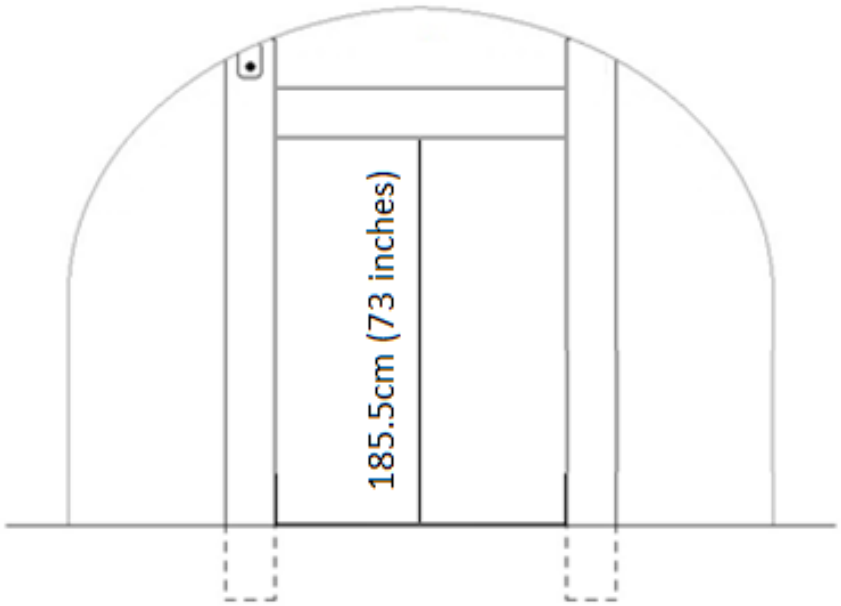


Fig64

Measure 73 inches up from ground level on the fixed door post and make a mark. Drill a 5mm hole through the side of the door post 1½ inch above this mark. Holding the lintel so the bottom face is in line with the mark, fix in place with a 6 inch nail through the previously drilled hole **(Fig65).**

Making sure the lintel is level horizontally (a spirit level comes in handy) butt the loose door post up to it and drill another 5mm hole through the post and into the lintel. Fix in place with a 6 inch nail.

Nail a nail plate across each joint on the inside of the polytunnel **(Fig66).**

Fig65

Fig66

You can now fix the second post to the door rail by tightening and secure 'P' Clip to the door rail with a self-drill screw.

*****Please note: When placing a polytunnel on a hard base, Angle Brackets should be used to secure the bottom of the Door Posts, see 'Base Plates' section on page 8*****

DOUBLE DOOR FRAME – SLIDING DOORS

3 inch x 2 inch timber is used for the door frame.

It may help to place a string line across the end hoop – This can then be used as a line for the door frame, or just use your eye to line the frame with the end hoop.

The door opening will be 30 inches if using the standard sliding door supplied with your kit.

Mark the door rail 31 inches each side of centre (this is where the door posts will fix) and dig two holes approximately 6 inches square and 12 inches deep directly below these marks **(Fig67).**

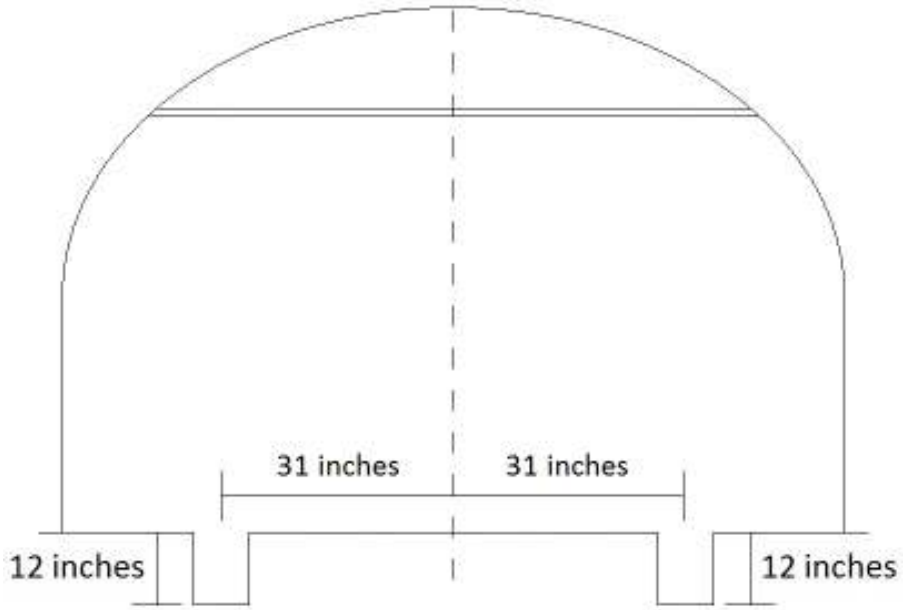


Fig67

Position one of the 8ft door post into one of the holes (preferably the hole on the highest side of the tunnel when on sloping ground) with the inside edge up to the mark on the door rail. Check the post for vertical and mark the timber under the door rail **(Fig68).**

Fig68

Cut the post on this mark.

Re-position the post in the hole. Place a ‘P’ Clip around the door rail with the leg of the P down the inside of the post. Drill the post through the ‘P’ Clip and bolt together using a cross head roofing bolt **(Fig69)**. Make sure the inside edge of the post is still in line with the mark on the door rail. Tighten and secure the ‘P’ Clip to the door rail with a self-drill screw.

Fig69

Making sure the post is vertical, backfill the hole until at ground level.

Place the second door post in its hole. Mark the post under the door rail and cut on the mark. Hang the post using the same method as used when hanging the first post but leave the ‘P’ Clip loose. Using the pre-cut timber lintel as a spacer to make sure the posts are 62 inches apart, backfill the hole **(Fig70).**

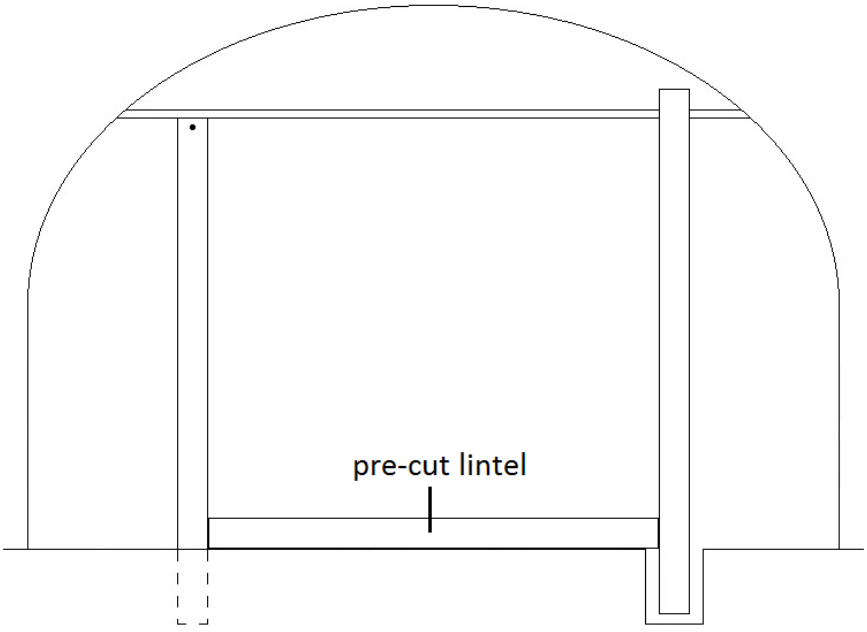


Fig70

It is important that the timber lintel is the correct height so that the doors are free to slide without leaving a large gap at the bottom.

The measurement from ground level to the ***underside*** of the door frame lintel should be 73 inches **(Fig71)** – this will leave a gap of 1 inch under the doors.

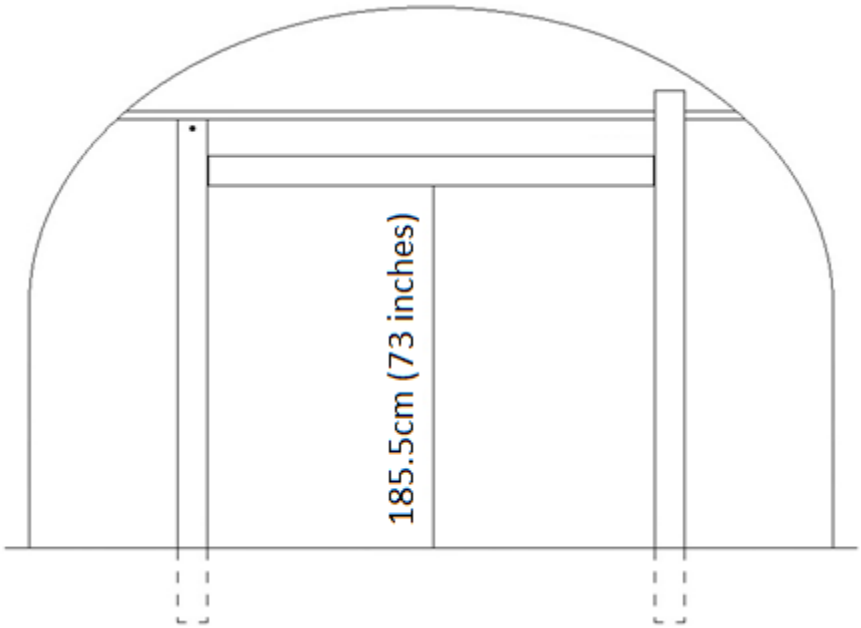


Fig71

Measure 73 inches up from ground level on the fixed door post and make a mark. Drill a 5mm hole through the side of the door post 1½ inch above this mark. Holding the lintel so the bottom face is in line with the mark, fix in place with a 6 inch nail through the previously drilled hole **(Fig72).**

Making sure the lintel is level horizontally (a spirit level comes in handy) butt the loose door post up to it and drill another 5mm hole through the post and into the lintel. Fix in place with a 6 inch nail.

Nail a nail plate across each joint on the inside of the polytunnel **(Fig73).**

Fig72

Fig73

You can now fix the second post to the door rail by tightening and secure 'P' Clip to the door rail with a self-drill screw.

*****Please note: When placing a polytunnel on a hard base, Angle Brackets should be used to secure the bottom of the Door Posts, see 'Base Plates' section on page 8*****

TIMBER BASE RAILS

3 inch x 1 inch timber is used for the timber base rails.

This timber rail goes around the outside of the polytunnel framework at ground level and finishes at the door posts **(Fig74)**.

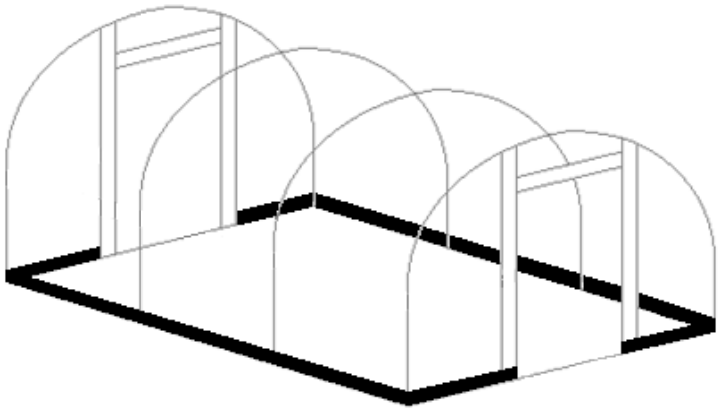


Fig74

The rails which make up the sides of the polytunnel are placed end to end and fixed at each hoop.

At each intermediate hoop a 'P' Clip is used to fix the timber rails to the hoop **(Fig75).**

Fig75

At the corners a corner bracket should be placed around the hoop and the timber rails bolted through this bracket **(Fig76).**

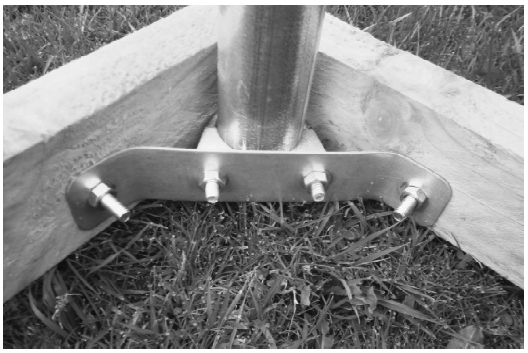


Fig76

These side timbers should be left overhanging by at least 1 inch at each end. Wherever a joint in the rail occurs, nail an 8½ inch piece of the same timber (supplied) across the joint on the inside **(Fig77)**.

Fig77

Cut a length of timber to fit across the front of each door post and butt up to the overhanging side timber.

To attach the end rail to the door post drill a 9mm hole through the end rail and door post and bolt in place with a 75mm cup bolt with a washer under the nut on the inside **(Fig78)**.
If the polytunnel is being placed onto hard standing then drill the 9mm hole through the angle bracket on the inside of the door post and through the end rail. The 75mm bolt then fixes the end rail, door post and angle bracket together.

Fig78

At the outer corners, bolt the timber to the corner bracket **(Fig76 on page 36).**

Nail a 3 inch nail through the side timber and into the end rail and cut off the overhang.

*****PLEASE NOTE: if a ventilation screen is being used then the base rail will require spacing out, see 'ventilation screens for timber base and side rails' section on page 40*****

FORMING A REBATE ON THE BASE RAILS

*****PLEASE NOTE: If you are using a Timber Side Rail it is not necessary to create a rebate on the Timber Base Rails as the ventilation net will be secured to the Base Rail adequately with a single batten*****

In order that the polythene cover can be attached easily and securely, a rebate needs to be formed around the base rails. To do this a batten is nailed around the top outside edge of the base rails **(Fig79)**. Where a batten crosses a joint a nail should be positioned at each side of the joint, this will make the joint more robust.

Fig79

Once you have formed the rebate all the way around from outer post to outer post it is necessary to cut off (at an angle) any rebate that protrudes at the corners **(Fig80).**

Fig80

TIMBER SIDE RAILS AND VENTILATION NET

Timber side rails are identical to timber base rails and should be fixed using the same method (see 'Timber base rail' section on page 36) but placed **1m** from the ground on the straight side of the polytunnel leg **(Fig81)**.
If a ventilation screen kit is to be used then it is required that the side rail runs as level horizontally as possible and there is no more than 800mm between the base rail and side rail. It is also required that the side rail is spaced out from the tunnel (please see 'ventilation screens for timber base and side rails' section on page 40), this is so the screen can wind up and down with ease.

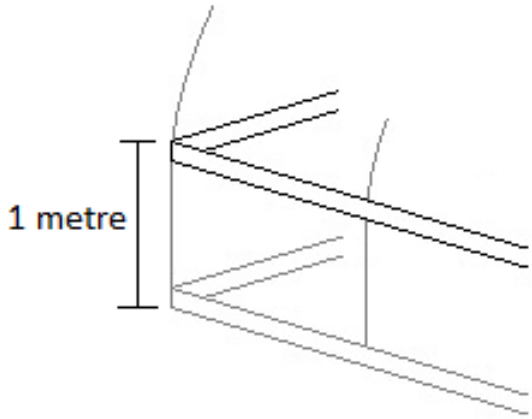


Fig81

The ventilation net should be trapped between the timber side rail and the rebate batten, along the top edge of the side rail (leaving some excess at each end) from door post to door post **(Fig82)**.

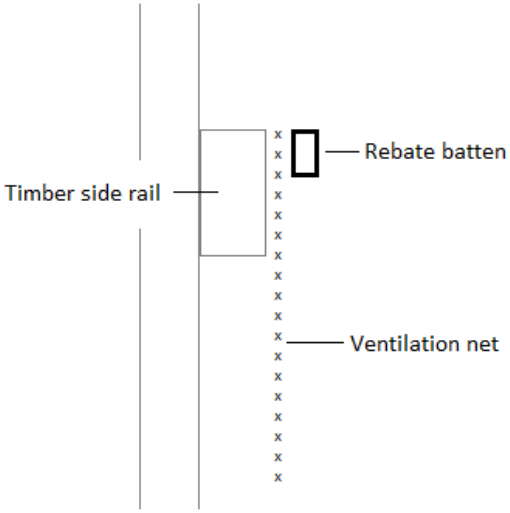


Fig82

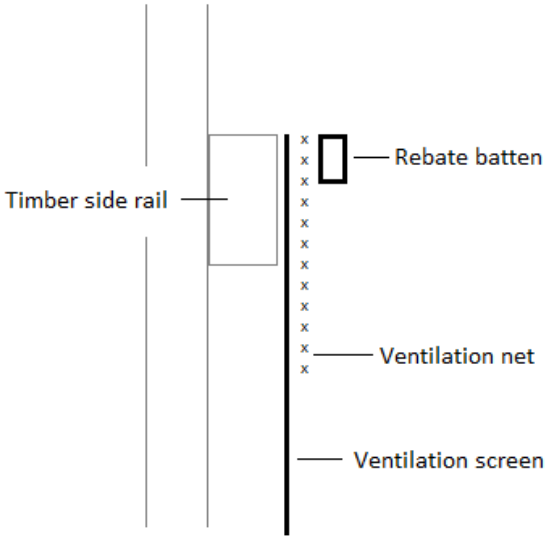


Fig83

PLEASE NOTE: If a ventilation screen kit is being used then the ventilation screen polythene should be placed between the netting and the timber side rail **(Fig83).** The ventilation screen and the netting should only run down the length of the tunnel and not around the corner to the door posts.

With a ventilation screen kit the polythene infill panels should be placed between the side rail and the rebate batten on the ends of the tunnel, and should come around the corners by approximately 24 inches **(Fig84)**

Fig84

VENTILATION SCREENS FOR TIMBER BASE AND SIDE RAILS

Your pack will include an 800mm long piece of timber with an aluminium track screwed in place – this 800mm length should be used to set the gap between the timber base rails and timber side rails.

*****IT IS IMPORTANT THAT THIS GAP IS 800mm*****

This piece of timber and a similar piece without the track attached are the verticals which are placed between the base rail and side rail at each corner at a later stage.

When assembling the timber side rail it is necessary to space it out from the hoops to make room for the vent screen – this is done by placing a short spacer block of timber (supplied) between the rails and all hoops (side only, not on the ends) **(Fig85)**.

A plate, as shown in the next picture, should be placed behind the corner bracket on the end hoops only – the plate on the base rail should point upwards and the plate on the side rail should point downwards. The plate should be on the side of the polytunnel (not the end) and is used later to fix the vertical timbers **(Fig86)**.

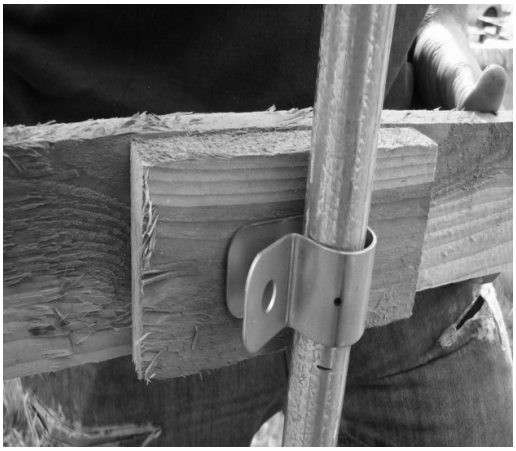


Fig85

Fig86

Once the tunnel is covered and the side rail has been lowered back to its original position you can now drill and bolt in place the vertical timbers at each corner of the tunnel using the previously mentioned plates **(Fig87)**. The aluminium track is screwed to one edge of the timber – this edge of the timber should face down the length of the Polytunnel.

*****Don't forget to slide the gearbox mechanism into the track before fitting*****

Fig87

Assemble the 28mm steel lifting tube as a complete length using the self drill screws with the square adaptor at the gearbox end **(Fig88)**. Insert the adaptor into the gearbox and cut the tube to fit between the vertical timbers with a little room for movement. Place a plastic end cap in the opposite end to the gearbox to finish it off neatly **(Fig89)**. Slot the square adaptor into the gearbox with the steel lifting tube resting on the top of the base rail.

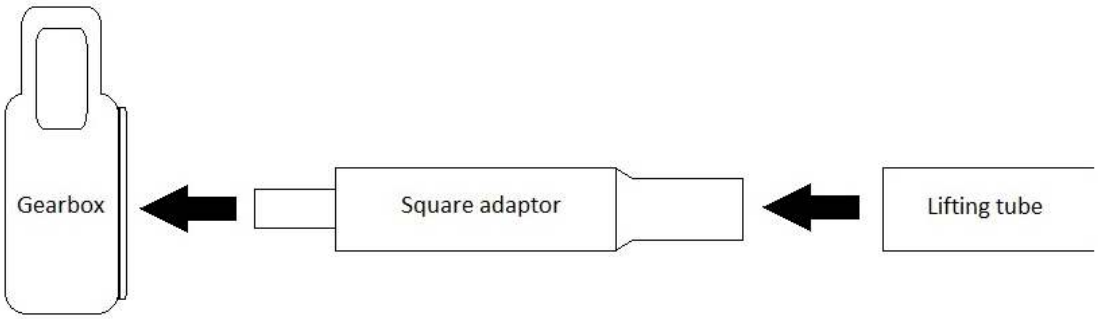


Fig88

Fig89

Trim the polythene screen in line with the ends of the lifting tube and trim off the excess along the ground leaving approximately 1ft of overlap **(Fig90)**.

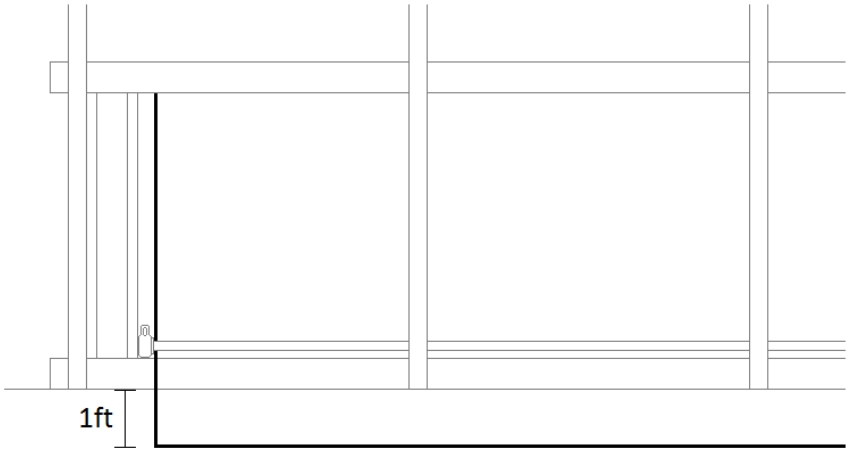


Fig90

Using the plastic 'C' Clips provided, clamp the bottom edge of the screen to the tube **(Fig91)**. A 'C' Clip should be placed approximately every 3ft along the tube on standard polytunnels and every 2½ft on PREMIER polytunnels.
Place the handle in the gearbox and wind the screen onto the lifting tube (including the excess polythene). If the screen does not roll up parallel, relocate the 'C' Clips around the tube until it rolls up correctly **(Fig92)**.

Fig91

Fig92

Finally, on the ends of the polytunnel, tension the polythene infill panels and the ventilation netting down to the base rail and batten in position.

Tension the infill panels out to the door posts and batten in place.

Finish by battening both the polythene infill panels and side ventilation net onto the vertical timbers at each corner.

ALUMINIUM BASE RAILS

Tools required:
Hacksaw/Angle grinder 3mm Allen key (Supplied)
Always wear a dust mask and eye protection when using an angle grinder

This aluminium rail goes around the outside of the polytunnel framework at ground level, leaving only the door opening **(Fig93).**

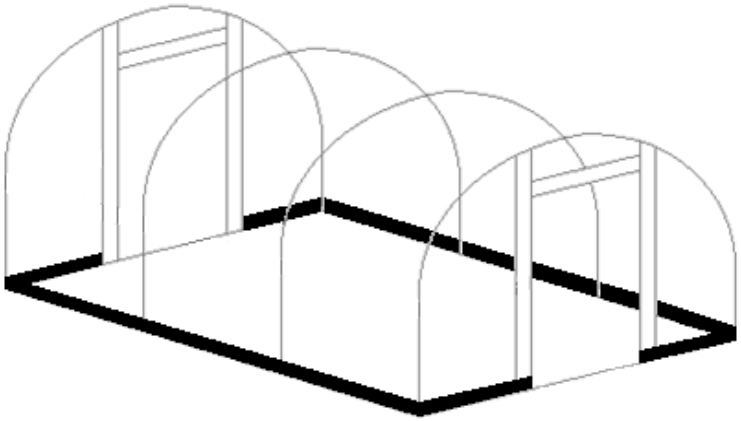


Fig93

The rails which make up the sides of the polytunnel are made up of a starter piece (3ft on standard polytunnels and 6ft on PREMIER polytunnels) and one or more extensions (6ft on standard polytunnels and 5ft on PREMIER polytunnels). These aluminium sections are placed end to end and fixed at each hoop.

At each intermediate hoop a 'P' Clip is used to fix the aluminium rails to the hoop **(Fig94).**
*****Please note: the bolts for these clips must be slid into the aluminium rail from the end*****

At the corners a corner bracket should be placed around the hoop and the aluminium rails bolted through this bracket **(Fig95).**

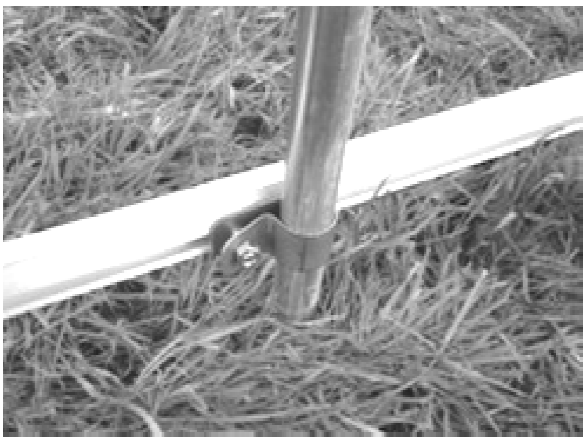


Fig94

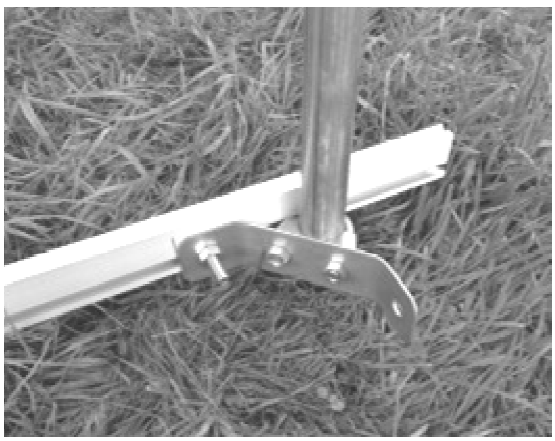


Fig95

Wherever a joint in the rail occurs, a joiner is used to fix the two aluminium lengths together **(Fig96).** The grub screws for these joiners are tightened into the aluminium sections using the Allen key supplied. These joiners must be inserted as you add each section of base rail.

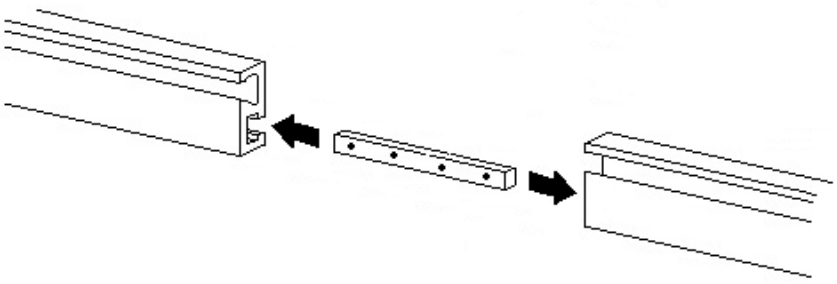


Fig96

Cut a 6ft length of aluminium (with either an angle grinder or a hacksaw) to fit across the front of each door post and butt up to the overhanging aluminium rails.
To attach the end rail to the door post drill a 9mm hole through the end rail and door post and bolt in place with a 65mm hex bolt with a washer under the nut on the inside **(Fig97)**.
If the polytunnel is being placed onto hard standing then drill the 9mm hole through the angle bracket on the inside of the door post. The 65mm bolt then fixes the end rail, door post and angle bracket together.

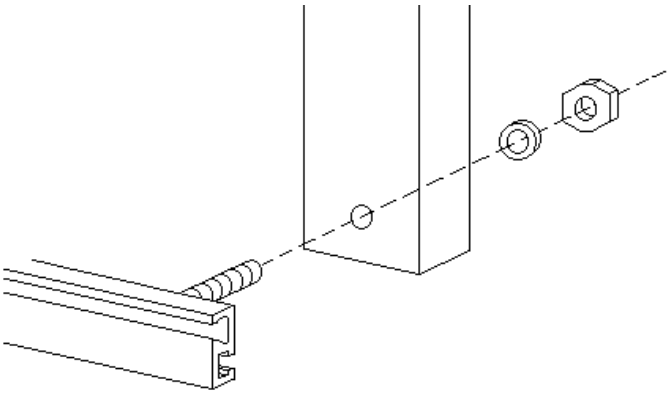


Fig97

Bolt the opposite end of the end rail to the corner bracket and cut off the overhang on the side rail. Make sure to smooth off any sharp corners to avoid the cover splitting at these points.

*****PLEASE NOTE: if a ventilation screen is being used then the base rail will require spacing out, see 'ventilation screens for aluminium base and side rails' section on page 46*****

ALUMINIUM SIDE RAILS

Tools required:
Hacksaw/Angle grinder 3mm Allen key (Supplied)
Always wear a dust mask and eye protection when using an angle grinder

Aluminium side rails are fitted identically to aluminium base rails and should be fixed using the same method (see 'aluminium base rail' section on page 43) but placed **1m** from the ground on the straight side of the polytunnel leg **(Fig98)**. The only difference being that instead of a single aluminium grip rail, a **DOUBLE** aluminium grip rail is used.

If a ventilation screen kit is to be used then it is required that the side rail runs as level horizontally as possible and there is no more than 800mm between the base rail and side rail. It is also required that the side rail is spaced out from the tunnel (please see 'ventilation screens for aluminium base and side rails' section on page 46), this is so the screen can wind up and down with ease.

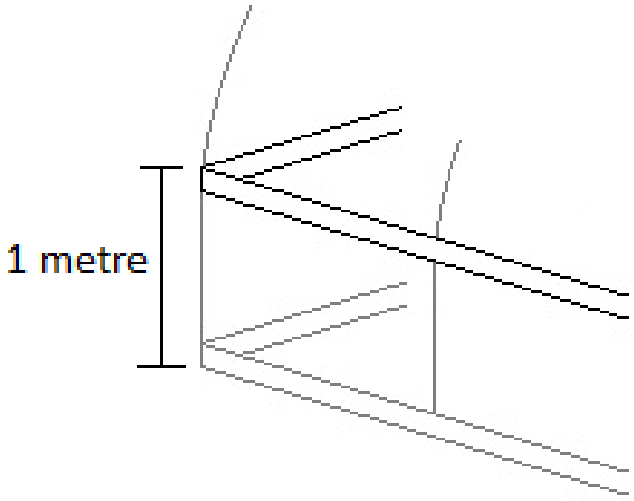


Fig98

VENTILATION SCREENS FOR ALUMINIUM BASE AND SIDE RAILS

Tools required:
Rubber hammer

Your pack will include an 800mm long piece of double grip rail with an aluminium track bolted in place – this 800mm length should be used to set the gap between the base rails and side rails.

*****IT IS IMPORTANT THAT THIS GAP IS 800mm*****

This piece of aluminium and a similar piece without the track attached are the verticals which are placed between the base rail and side rail at each corner at a later stage.

When assembling the base rail and side rail it is necessary to space them out from the hoops to make room for the vent screen.

On the aluminium base/side rails this is done by placing 35mm plastic spacers on every bolt between the fixings and the rails **(Fig99).**
Washers are placed either side of the spacers on the bolts **(Fig100)**.
On the end hoops, a flat plate should be placed over the bolt, between the spacer and the aluminium rail **(Fig99)**. The plate should be on the side of the polytunnel (not the end) and is used later to fix the verticals. The plate on the base rail should point upwards and the plate on the side rail should point downwards.

Fig99

Fig100

*****Please Note: the rails at the ends of the tunnel (from hoop to door post) DO NOT require spacing out*****

After raising the side rail and fitting the cover, push the side rails back down to their original position.
You can now bolt in place the verticals using the previously mentioned plates **(Fig99)**.

Slide the gearbox into the track and insert a self drill screw approximately 5mm in from each end of the track to stop the gearbox from coming out **(Fig101)**.

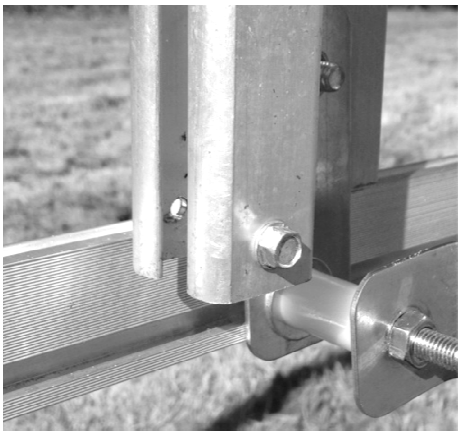


Fig101

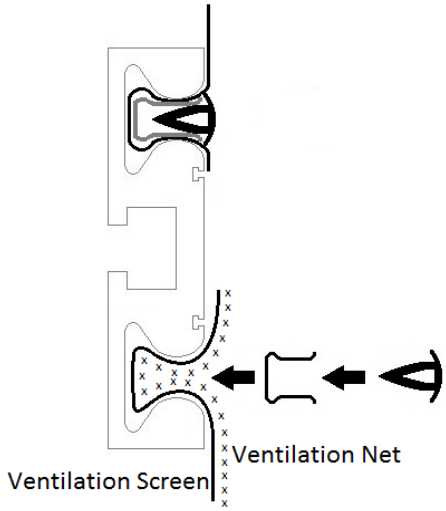


Fig102

The ventilation screen and the ventilation net are both fixed into the bottom cover slot down the length of the side rail from vertical to vertical.
The screen is to be placed in the slot first and then the net on top of it. Use the **BLACK** plastic 'U' profiles to fix these and NOT the grey profiles **(Fig102).** Insert plastic 'T' profiles into the 'U' profiles to secure.

Assemble the 28mm steel lifting tube as a complete length using the self drill screws with the square adaptor at the gearbox end **(Fig103)**. Insert the adaptor into the gearbox and cut the tube to fit between the vertical timbers with a little room for movement. Place a plastic end cap in the opposite end to the gearbox to finish it off neatly **(Fig104)**. Slot the square adaptor into the gearbox with the steel lifting tube resting on the top of the base rail.

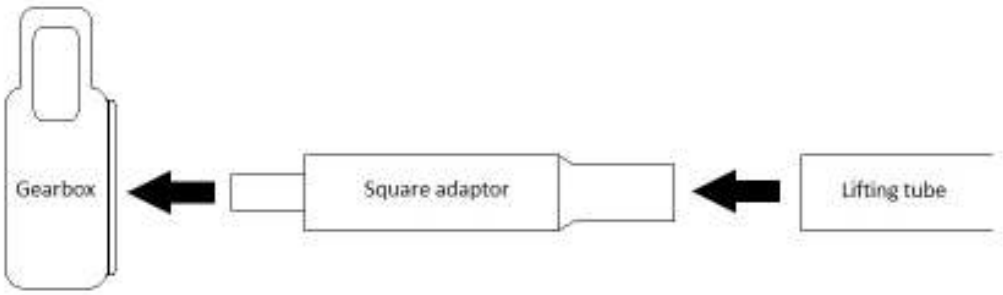


Fig103

Fig104

Trim the polythene screen in line with the ends of the lifting tube and trim off the excess along the ground leaving approximately 1ft of overlap **(Fig105)**.

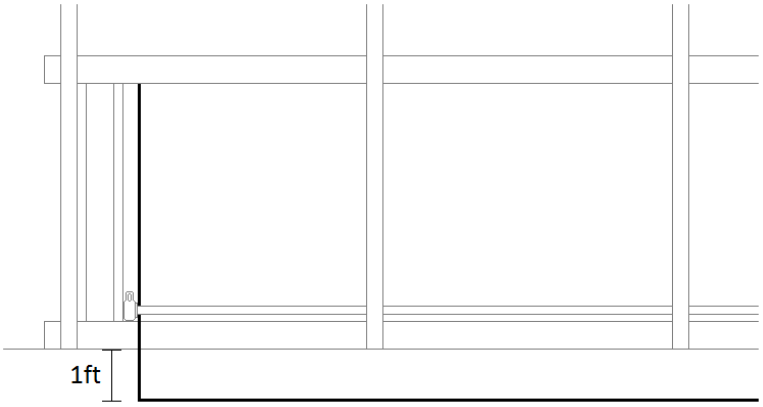


Fig105

Using the plastic 'C' Clips provided, clamp the bottom edge of the screen to the tube **(Fig106)**. A 'C' Clip should be placed approximately every 3ft along the tube on standard polytunnels and every 2½ft on PREMIER polytunnels.
Place the handle in the gearbox and wind the screen onto the lifting tube (including the excess polythene). If the screen does not roll up parallel, relocate the 'C' Clips around the tube until it rolls up correctly **(Fig107)**.

Fig106

Fig107

Tension the ventilation net down to the base rails and out to the verticals, using **Grey** plastic 'U' profiles to fix in place.
Insert plastic 'T' profiles into all the 'U' profiles to secure them in place.

With your order you will also have received polythene infill panels for each corner. Using the **Grey** plastic 'U' profiles fit these panels into the bottom cover slot of the side rail from the door posts at each end of the tunnel out to and around the corner to the verticals. Insert a plastic 'T' profile into the 'U' profiles to secure.
Tension the panels down to the base rail and fit in place using a **GREY** plastic 'U' profile and 'T' profiles to secure.
Next tension the end panels out to the door posts and the verticals and fix in place, using batten for the door posts and 'U' profiles for the verticals **(Fig108)**. Insert a 'T' profile into the 'U' profile on the vertical.

Fig108

VENTILATION SCREENS FOR TIMBER, ALUMINIUM COMBINATION

Tools required:
Rubber hammer

Your pack will include an 800mm long piece of timber with an aluminium track screwed in place – this 800mm length should be used to set the gap between the base rails and side rails.

*****IT IS IMPORTANT THAT THIS GAP IS 800mm*****

This piece of timber and a similar piece without the track attached are the verticals which are placed between the base rail and side rail at each corner at a later stage.

When assembling the timber base/side rail it is necessary to space it out from the hoops to make room for the vent screen – this is done by placing a short spacer block of timber (supplied) between the rails and all hoops (side only, not on the ends) **(Fig109)**.

On the timber base/side rail a plate, as shown in the next picture, should be placed behind the corner bracket on the end hoops only – if the plate is on the base rail it should point upwards and if on the side rail it should point downwards. The plate should be on the side of the polytunnel (not the end) and is used later to fix the vertical timbers **(Fig110)**.

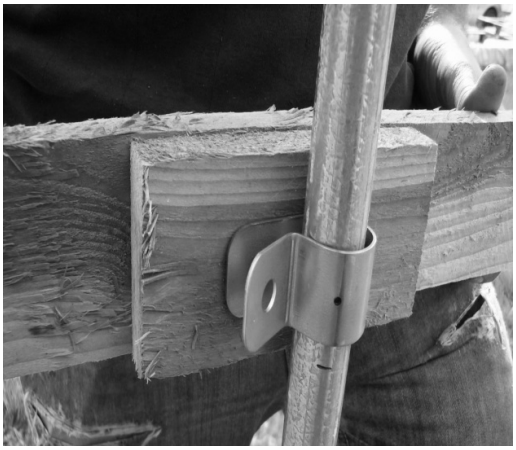


Fig109

Fig110

When assembling the aluminium base/side rail it is necessary to space it out from the hoops to make room for the vent screen.
This is done by placing 35mm plastic spacers on every bolt between the fixings and the rails down the length of the tunnel **(Fig111).** The rails at the ends of the tunnel do not require spacing out. Washers are placed either side of the spacers on the bolts **(Fig112)**.
On the end hoops, a flat plate should be placed over the bolt, between the spacer and the corner bracket. The plate should be on the side of the polytunnel (not the end) and is used later to fix the verticals **(Fig111)**. If the plate is on the base rail it should point upwards and if on the side rail it should point downwards.

Fig111

Fig112

Once the tunnel is covered and the side rail has been lowered back to its starting position you can now drill and bolt in place the vertical timbers at each corner of the tunnel using the previously mentioned plates **(Fig113)**. The aluminium track is screwed to one edge of the timber – this edge of the timber should face down the length of the Polytunnel.

*****Don't forget to slide the gearbox mechanism into the track before fitting*****

Fig113

Insert a self drill screw approximately 5mm in from each end of the track to stop the gearbox from coming out **(Fig114).**

Fig114

When using aluminium side rails you must now fit your polythene infill panels into the bottom cover slot of the side rail. These should go from the door post out to and around the corner to the verticals. Use the **Grey** plastic 'U' profiles to fix the panels into the side rail **(Fig115)**.

Fig115

Next fix the ventilation screen and ventilation net into the bottom cover slot of the side rail, but only down the length of the tunnel from vertical to vertical. The screen is to be placed in the slot first and then the net on top of it. Use the **BLACK** plastic 'U' profiles to fix these and NOT the grey profiles **(Fig116).**

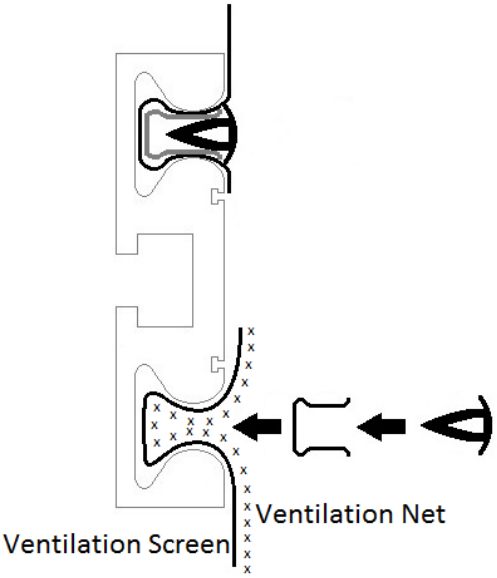


Fig116

Once the infill panels, ventilation screen and ventilation net have been fixed with 'U' profiles, secure them by inserting plastic 'T' profiles into the 'U' profiles **(Fig116).**

Assemble the 28mm steel lifting tube as a complete length using the self drill screws with the square adaptor at the gearbox end **(Fig117)**. Cut this tube to fit between the verticals with a little room for movement. Place a plastic end cap in the opposite end to the gearbox to finish it off neatly **(Fig118)**. Slot the square adaptor into the gearbox with the steel lifting tube resting on the top of the base rail.

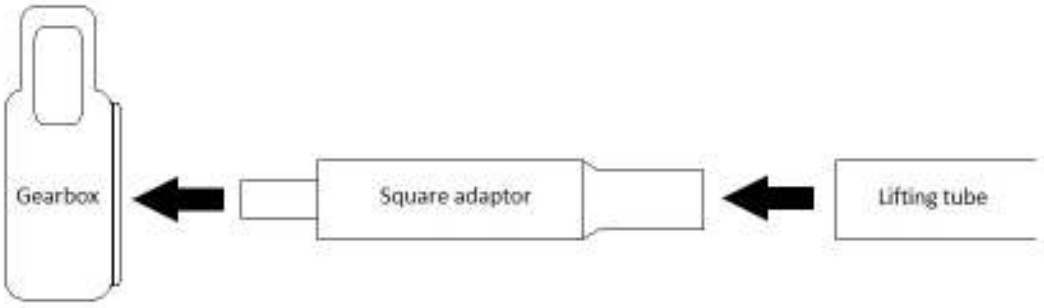


Fig117

Fig118

Trim the polythene screen in line with the ends of the lifting tube and trim off the excess along the ground leaving approximately 1ft of overlap **(Fig119)**.

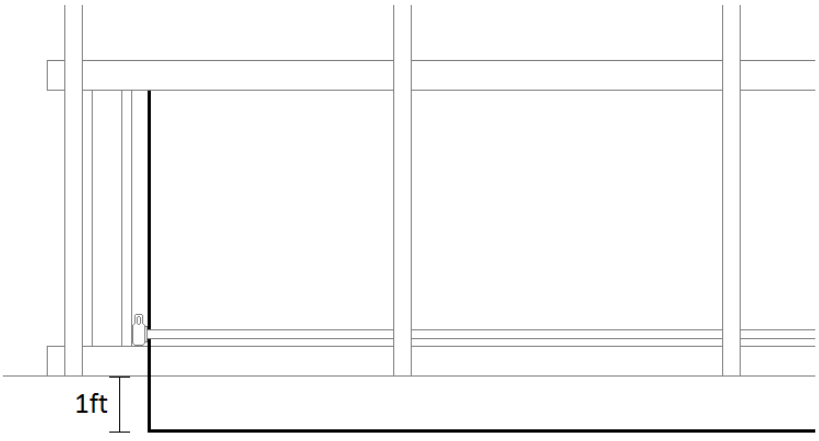


Fig119

Using the plastic 'C' Clips provided, clamp the bottom edge of the screen to the tube **(Fig120)**. A 'C' Clip should be placed approximately every 3ft along the tube on standard polytunnels and every 2½ft on PREMIER polytunnels.
Place the handle in the gearbox and wind the screen onto the lifting tube (including the excess polythene). If the screen does not roll up parallel, relocate the 'C' Clips around the tube until it rolls up correctly **(Fig121)**.

Fig120

Fig121

Tension the ventilation net and infill panels down to the base rail and depending on which base rail option you have chosen (timber or aluminium)either batten in place or fix using the **Grey** 'U' and 'T' profiles.

Next tension the net and infill panels out to the verticals and the door posts, and batten in place.

FORMING A REBATE FOR THE DOOR FRAME

In order to fix the cover around the door frame and give it the necessary strength to remain held in position under extreme weather, it is trapped in a rebate which must be formed around the outside edge of the door frame with 19mm x 38mm battens. These battens should be cut and nailed up each leg and across the lintel to the outside edge (nails spaced at 9 inch).

The rebate battens should over hang the frame slightly to leave enough room on the 3 inch face for a cover batten to be fitted and not enter the door opening **(Fig122).**

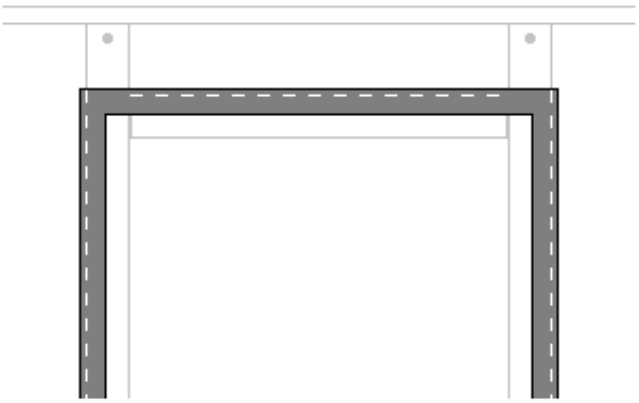


Fig122

The cover then comes over this batten and is trapped in place by another batten nailed to the door frame up against the first batten.

FINAL FIX

Check the structure all around for alignment and positioning of all the bars. If you are happy, all joints and 'P' Clips can now be secured with a self drill screw **(Fig123)**. In some cases this may be a combined fix of both joint and 'P' Clip. These screws are held in the nut driver provided and, in the case of the 'P' Clips, use one of the two small holes as a starter point for the screw **(Fig124)**.
Keep all screws to the inside of the polytunnel, away from where the polythene cover may rub.

*****The only joints that should not be secured at this stage are the hoops onto the foundations, this joint is secured once the cover has been completed and tensioned*****

Fig123

Fig124

ANTI HOT SPOT TAPE

This is a self adhesive foam tape which is placed over each hoop. Anti Hot Spot Tape should be used just prior to covering your polytunnel.

This tape should be placed over each hoop from ground to ground or to the top of the Side Rail. On the end hoops the tape should be placed at a 45-degree angle on the corner of the hoop in order to protect the polythene cover as it stretches around the hoop to the door frame.

Anti Hot Spot Tape

COVERING THE POLYTUNNEL

Timber base rail option:

TOP TIP: Nail any battens up prior to covering the polytunnel as this will speed up the job of getting the cover secure before any gusts of wind arise**. Don't allow the point of the nails to protrude through the batten.**

On any sides where base rails are being used without side rails, loosen the clamps holding the base rail to the hoops. Raise the base rails by 1½ - 2 inches and retighten the clamps, securing the 'P' Clips with a self drill screw.

Roll the cover out along the side of the polytunnel after checking and clearing the ground of sharp objects.

ONLY ROLL OUT YOUR COVER ON A CALM DAY AS YOU ARE EFFECTIVELY OPENING A LARGE SAIL.

This Thermal Anti Drip polythene must be placed with the Anti Drip side facing inside the polytunnel. The word "INSIDE" is written within the elephant logo and you should be able to read this when stood inside the polytunnel **(Fig125)**.

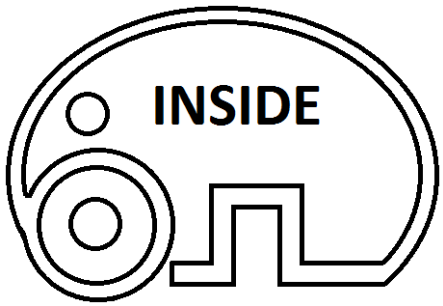


Fig125

With one person at each end, hold the edge of the sheet which, when pulled over the framework, will ensure the correct side of the polythene is on the inside of the polytunnel. Stretch the sheet tight along the length of the polytunnel and walk to the opposite side of the structure, taking the sheet over the framework and being careful not to snag the sheet on any protrusions **(Fig126)**.

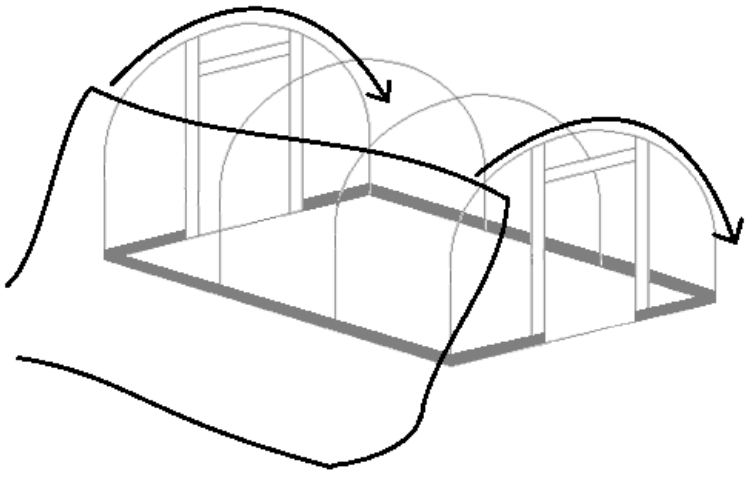


Fig126

The polythene is very strong and resistant to tearing so don't be afraid to pull it as hard as you can, but it is advisable to grip the polythene only around the edges as in the event of damage this area will be trimmed off.
Centralise the sheet along the width and length of the polytunnel – You will find that the sheet will not reach to the ground at the ends, but this is correct and there is no need to worry **(Fig127).**

Fig127

- **STEP 1:** Cut a 19mm x 38mm batten to fit across the top of the door frame and end frame between the outer battens that form the rebate. Starting at one end of the polytunnel, trap the polythene with this batten pressed tight against the rebate batten. The polythene should be smoothed out 4 inches either side of the lintel centre and the batten nailed in place along this 8 inch length only **(Fig128)**.

Fig128

At the opposite end of the polytunnel the same method of fixing should be used, but this time the polythene should be pulled along the length of the polytunnel as tight as possible before nailing the batten in position.

- **STEP 2:** Tension the polythene down to the base rail on one side, starting in the middle – This is best done with one person at a hoop either side of centre. Do not over tension, but when the cover is smooth from the ridge down to the base rail batten the cover to the rail tight up to the rebate. Using this method, work your way out to the ends.
  Repeat this on the second side but this time get as much tension as possible into the cover **(Fig 129).**

*****Make sure to pull the cover along the length of the tunnel as well as down to the base rail, this will mean the cover will not dip between the hoops too much*****

Fig129

- **STEP 3:** With just the four corners and the door frames left, it will now be necessary to cut the polythene at the corners, but ONLY below the base/side rails, to allow the cover to come smoothly around the ends **(Fig130)**. It is important that the cover is cut in line with the end of the tunnel, **NOT** the length.

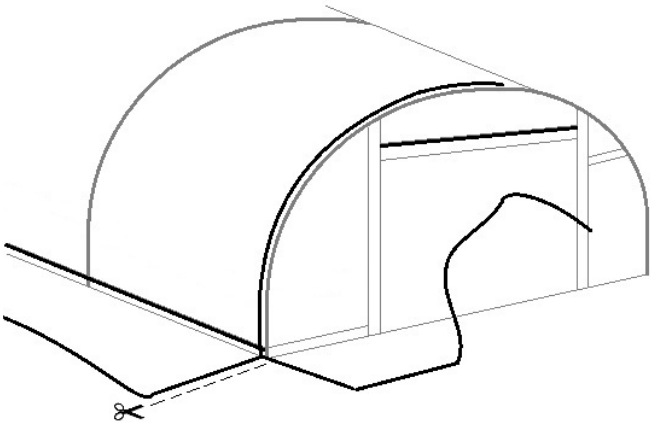


Fig130

- **STEP 3:** Starting at the lintel, grip the polythene and, while pulling tightly, twist the wrist to create a selection of pleats working out to the Door Post, nailing the batten as you go **(Fig131)**. Repeat this same method down each door post **(Fig132)**.

Fig131

Fig132

You should have run out of pleats by the time you reach the level of the straight side after which the polythene should form a smooth flat panel **(Fig133)**.

Tension the cover down to the base rails at each corner and fix with a batten.

Fig133

- **STEP 4:** Loosen the clamps holding the base rails to the hoops and push them back down to ground level. Retighten the clamp and secure the 'P' Clips with a self drill screw.

  Now the cover has been tensioned and the clamps have been retightened and secured it is **IMPORTANT** to secure the hoops to the foundation tubes using a self drill screw located approximately 2cm away from the joint (this joint may have already been secured along with one of the 'P' Clips holding the base rails).

  Trim off the excess polythene around the outside of the polytunnel **(Fig134)**.

Fig134

COVERING THE POLYTUNNEL

Timber side rail option:

The clamps holding the timber side rails to the hoops should be loosened and the side rail raised by 1½ - 2 inches. Retighten the clamps and secure the 'P' Clips with a self drill screw. Do the same with the base rails on any sides of the polytunnel where side rails aren't used.

Cover the polytunnel using exactly the same method as for timber base rails **(page 55)** but fix to the timber side rail.

Once the cover is fitted, loosen the clamps holding the side rail to the hoops and push the side rail base down to its starting position. Retighten the clamps and secure the 'P' Clips with a self drill screw **(Fig135).**

Fig135

Now the cover has been tensioned and the clamps have been retightened and secured it is **IMPORTANT** to secure the hoops to the foundation tubes using a self drill screw located approximately 2cm away from the joint (this joint may have already been secured along with one of the 'P' Clips holding the base rails).

Trim off the excess polythene around the outside of the polytunnel **(Fig136)**.

Fig136

Tension the ventilation net down to the base rail and depending on which base rail option you have chosen (timber or aluminium) either batten in place or fix using the **Grey** 'U' and 'T' profiles **(Fig137)**. Next tension the net out to the door posts, and batten in place.

Fig137

*****When a side ventilation screen is being used please see either 'ventilation screen for timber base and side rails' section on page 40 or 'ventilation screen for timber, aluminium combination' on page 49, depending on which options have been chosen, to see how to fix your netting and infill panels*****

COVERING THE POLYTUNNEL

Aluminium base rail option:

Tools required:
Rubber hammer

TOP TIP: Nail any battens up prior to covering the polytunnel as this will speed up the job of getting the cover secure before any gusts of wind arise**. Don't allow the point of the nails to protrude through the batten.**

On any sides where base rails are being used without side rails, loosen the clamps holding the base rail to the hoops. Raise the base rails by 1½ - 2 inches and retighten the clamps, securing the 'P' Clips with a self drill screw.

Roll the cover out along the side of the polytunnel after checking and clearing the ground of sharp objects.

ONLY ROLL OUT YOUR COVER ON A CALM DAY AS YOU ARE EFFECTIVELY OPENING A LARGE SAIL.

This Thermal Anti Drip polythene must be placed with the Anti Drip side facing inside the polytunnel. The word "INSIDE" is written within the elephant logo and you should be able to read this when stood inside the Polytunnel **(Fig138)**.

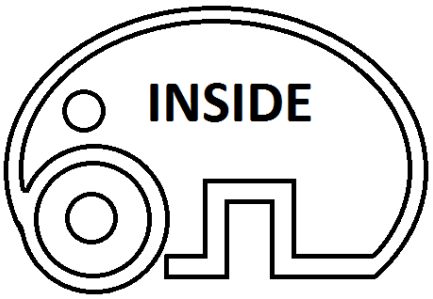


Fig138

With one person at each end, hold the edge of the sheet which, when pulled over the framework, will ensure the correct side of the polythene is on the inside of the polytunnel. Stretch the sheet tight along the length of the polytunnel and walk to the opposite side of the structure, taking the sheet over the framework and being careful not to snag the sheet on any protrusions **(Fig139)**.

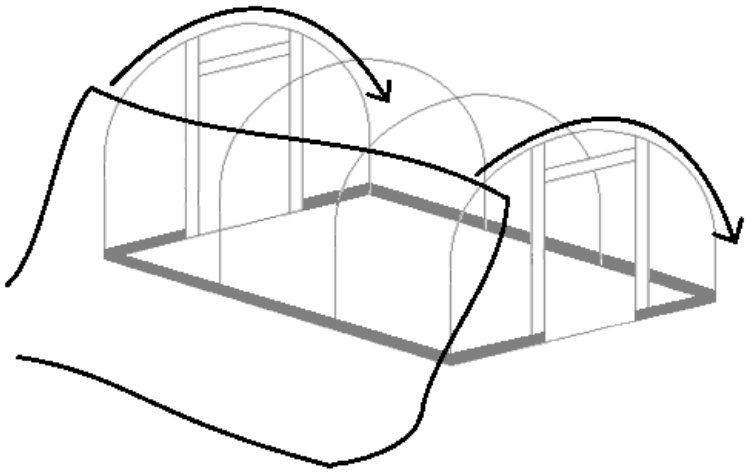


Fig139

The polythene is very strong and resistant to tearing so don't be afraid to pull it as hard as you can, but it is advisable to grip the polythene only around the edges as in the event of damage this area will be trimmed off.
Centralise the sheet along the width and length of the polytunnel – You will find that the sheet will not reach to the ground at the ends, but this is correct and there is no need to worry **(Fig140).**

Fig140

- **STEP 1:** Cut a 19mm x 38mm batten to fit across the top of the door frame and end frame between the outer battens that form the rebate. Starting at one end of the polytunnel, trap the polythene with this batten pressed tight against the rebate batten. The polythene should be smoothed out 4 inches either side of the lintel centre and the batten nailed in place along this 8 inch length only **(Fig141)**.

Fig141

At the opposite end of the polytunnel the same method of fixing should be used, but this time the polythene should be pulled along the length of the polytunnel as tight as possible before nailing the batten in position.

- **STEP 2:** Tension the polythene down to the base rail on one side starting in the middle – This is best done with one person at a hoop either side of centre **(Fig142)**. Do not over tension, but when the cover is smooth from the ridge down to the rail, insert one of the plastic 'U' profiles into the cover slot on the rail **(Fig143)**. A rubber hammer is preferred for this job as standard metal ones may crack the plastic profile.

  Work your way out to the ends using this method.

  Once the cover has been fitted with 'U' profiles down the full length of the polytunnel, insert plastic 'T' profiles into the 'U' profiles to secure in place.

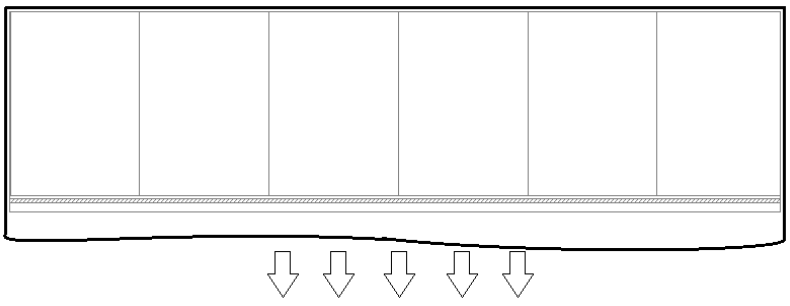


Fig142

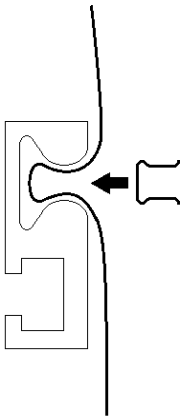


Fig143

Repeat this operation on the opposite side of the polytunnel, starting in the middle and working out – only this time get as much tension into the cover as possible. It is acceptable to grip the cover below the base/side rails to achieve the correct tension.

*****Make sure to pull the cover along the length of the tunnel as well as down to the base rail, this will mean the cover will not dip between the hoops too much*****

*****It is useful to push the cover into the cover slot before inserting the plastic 'U' profile as it eliminates the chance of slicing the cover*****

- **STEP 3:** With just the four corners and door posts left, it will now be necessary to cut the polythene at the corners, but ONLY below the base rails, to allow the cover to come smoothly around the ends **(Fig144)**. It is important that the cover is cut in line with the end of the tunnel, **NOT** the length.

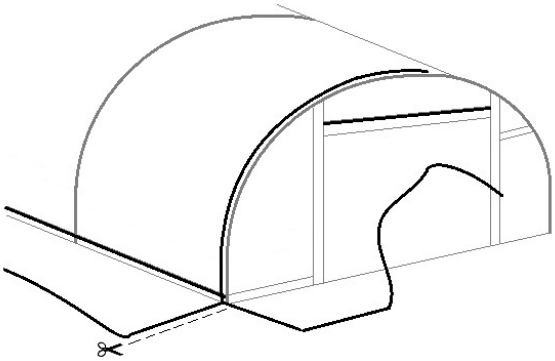


Fig144

- **STEP 3:** Starting at the lintel, grip the polythene and, while pulling tightly, twist the wrist to create a selection of pleats working out to the Door Post, nailing the batten as you go **(Fig145)**. Repeat this same method down each door post **(Fig146)**.

Fig145

Fig146

You should have run out of pleats by the time you reach the level of the straight side after which the polythene should form a smooth flat panel **(Fig147)**.
Tension the cover down to the base rails at each corner and fix with 'U' and 'T' profiles.

Fig147

- **STEP 4:** Loosen the clamps holding the base rails to the hoops and push them back down to ground level. Retighten the clamp and secure the 'P' Clips with a self drill screw**.**

  Now the cover has been tensioned and the clamps have been retightened and secured it is **IMPORTANT** to secure the hoops to the foundation tubes using a self drill screw located approximately 2cm away from the joint (this joint may have already been secured along with one of the 'P' Clips holding the base rails).

  Trim off the excess polythene around the outside of the polytunnel **(Fig148)**.

Fig148

COVERING THE POLYTUNNEL

Aluminium side rail option:

Tools required:
Rubber hammer

The clamps holding the aluminium side rails to the hoops should be loosened and the side rail raised by 1½ - 2 inches. Retighten the clamps and secure the 'P' Clips with a self drill screw. Do the same with the base rails on any sides of the polytunnel where side rails aren't used.

Cover the polytunnel using exactly the same method as for aluminium base rails **(page 60)** but fix to the aluminium side rail.

Once the cover is fitted, loosen the clamps holding the side rail to the hoops and push the side rail base down to its starting position. Retighten the clamps and secure the 'P' Clips with a self drill screw **(Fig149).**

Fig149

Now the cover has been tensioned and the clamps have been retightened and secured it is **IMPORTANT** to secure the hoops to the foundation tubes using a self drill screw located approximately 2cm away from the joint (this joint may have already been secured along with one of the 'P' Clips holding the base rails).

Trim off the excess polythene around the outside of the polytunnel **(Fig150)**.

Fig150

Fix the ventilation net into the lower cover slot of the Side Rail, using **Grey** 'U' and 'T' profiles; from door post to door post **(Fig151).**
Tension the ventilation net down to the base rail and depending on which base rail option you have chosen (timber or aluminium) either batten in place or fix using the **Grey** 'U' and 'T' profiles.
Next tension the net out to the door posts, and batten in place **(Fig152)**. Trim off any excess.

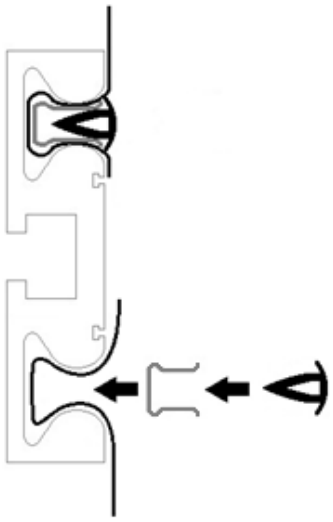


Fig151

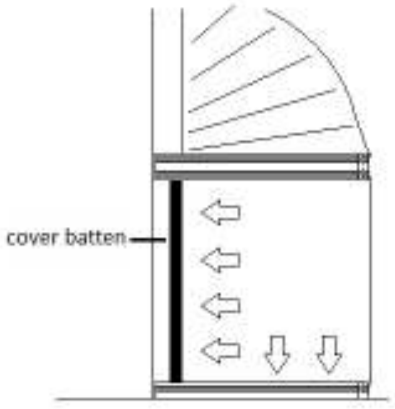


Fig152

*****When a side ventilation screen is being used please see either 'ventilation screen for aluminium base and side rails' section on page 46 or 'ventilation screen for timber, aluminium combination' on page 49, depending on which options have been chosen, to see how to fix your netting and infill panels*****

SLIDING DOOR ASSEMBLY

After completing and covering your polytunnel you can assemble the sliding door system.

Measure 1 inch up from the bottom edge of the door frame lintel and drill two 9mm holes through the timber batten and the face of the lintel approximately 4 inches in from each post **(Fig153).**

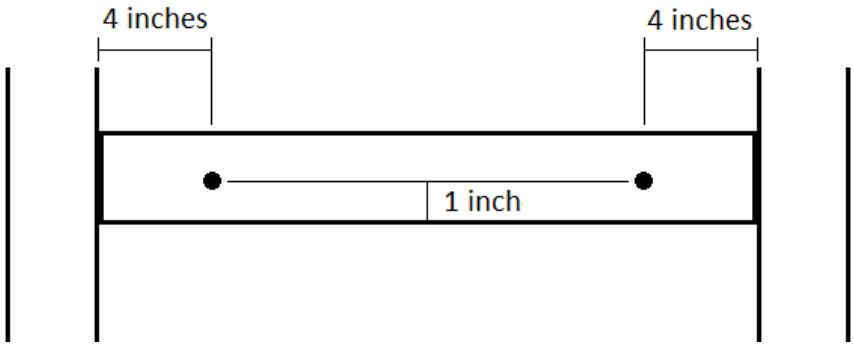


Fig153

On double sliding doors measure a 18 inches in from the outside holes and drill a further two 9mm holes **(Fig154)**.

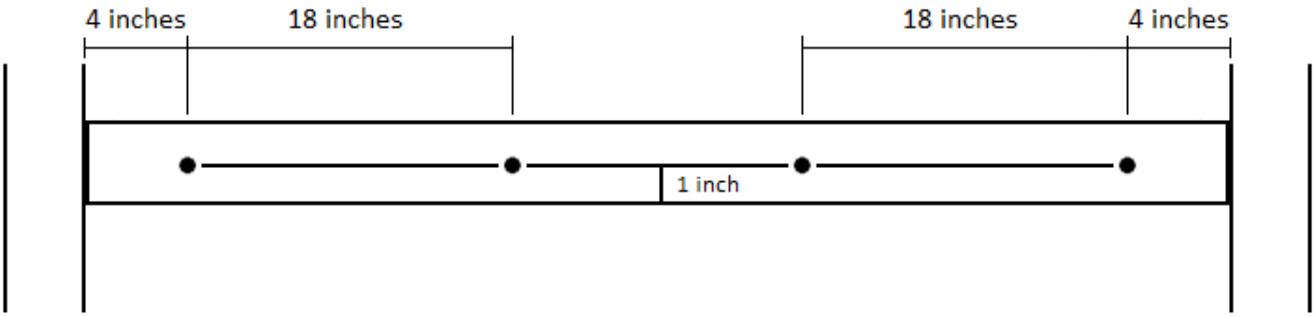


Fig154

Next, slide two/four 8mm x 80mm hexagon bolts into the 'T' slot on the back of the door track. Position these bolts in line with the holes drilled in the lintel and push into position **(see Fig155)**.

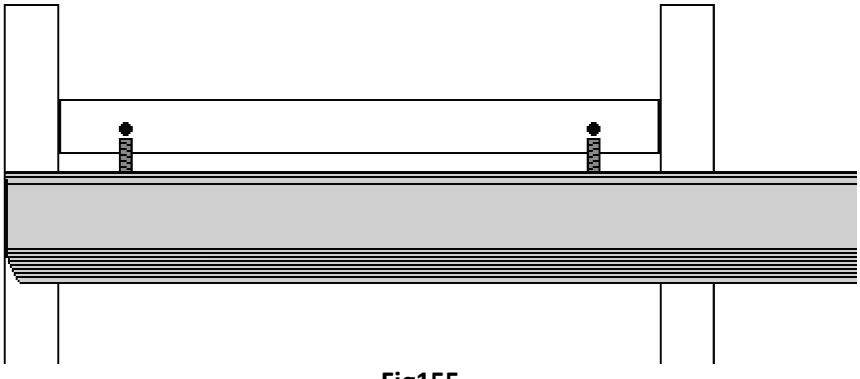


Fig155

Adjust the sliding door track as necessary so that the edge of the track on a single sliding door is in line with the outside edge of the door post which will hold the drop bolt when the door is closed **(Fig156)**.

Fig156

On a double sliding door, adjust the track so that the centre of the track is inline with the centre of the lintel **(Fig157)**.

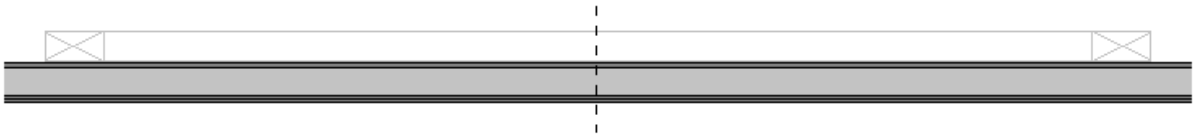


Fig157

Place a washer and nut on the bolts and tighten **(see Fig158)**.

Fig158

Having pre- assembled your door/doors and covered with net and polythene, you now need to screw the first runner (wheel) in position on the top edge **(Fig159)** – this is the end of the door that is covered in net.

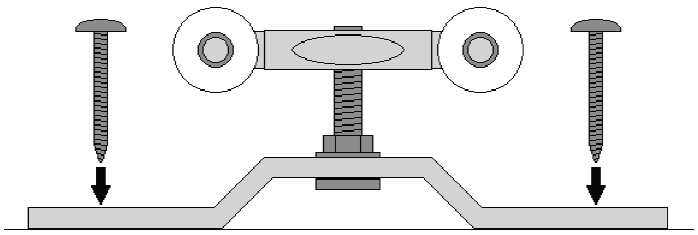


Fig159

The first runner should be screw onto the door 5 inches away from the side where the catch would usually be fitted on a hinged door **(Fig160)**. On double doors this will be the side where the doors will meet when closed.

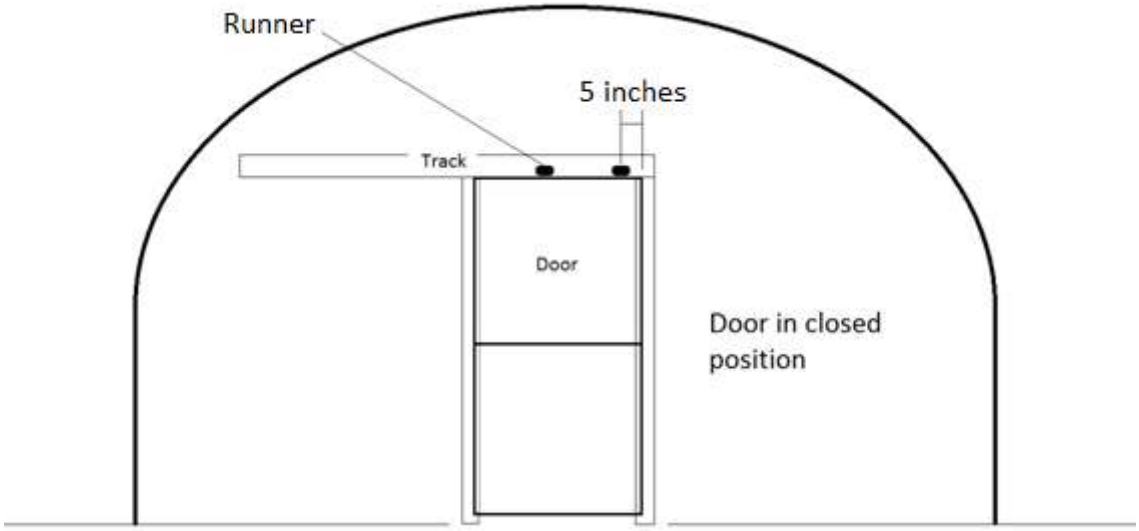


Fig160

The runner should be placed up to the ***inside*** edge of the door. (Please note; the ***outside*** edge is where the battens holding the net panel are fixed) – **(Fig161).**

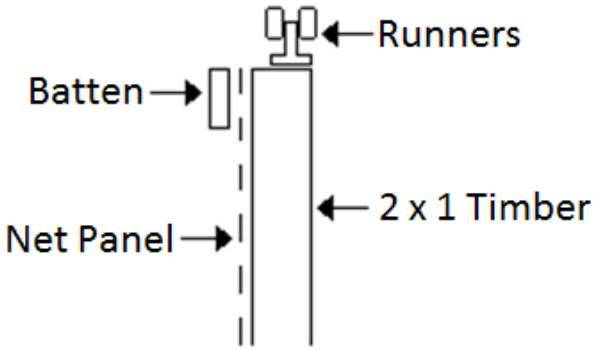


Fig161

The second runner should be placed 17 inches apart from the first runner **(Fig162)**, and should be placed up to the inside edge of the door again.

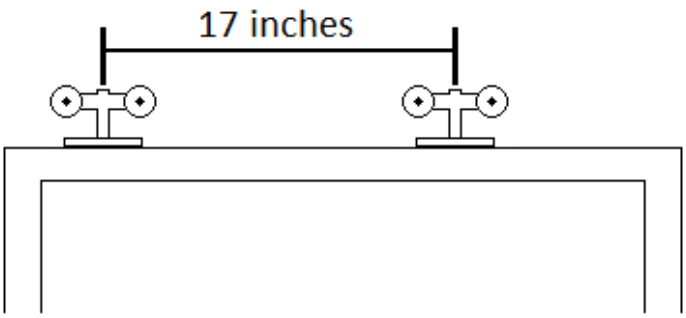


Fig162

On double sliding doors assemble and insert two door stops into the track **(Fig163)** – leave these loose in the track for the time being.

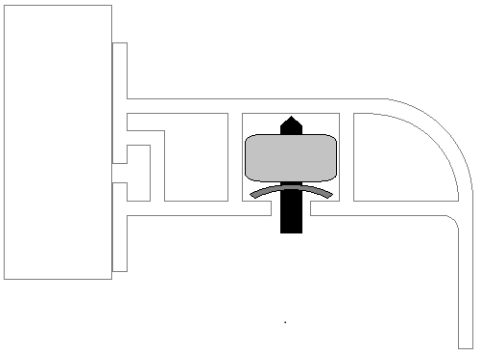


Fig163

Slide the door/doors into the track with the battens facing outwards. Adjust the runners up or down on the threaded bolts until the door sits square to the door frame.

Assemble and insert a door stop **(Fig163)** into each end of the track – leave these loose in the track for the time being.

Adjust the stops in the track until you are happy that they are in the right position so that the door/doors will not open or close too far, you can now tighten the stops to lock them in place.

Insert the plastic finishing end caps into the ends of the track to round off the sharp corners **(Fig164)**.

Fig164

When the door/doors are in the closed position it should overlap each door post equally – approximately 1 inch.

Drive a 500mm long tube (supplied) into the ground at each end of each door to stop it from swinging out away from the polytunnel **(Fig165)**.

Fig165

With the door/doors in the closed position, these drop tubes should be positioned in line with the vertical timbers of the door/doors **(Fig166 & Fig167)**.

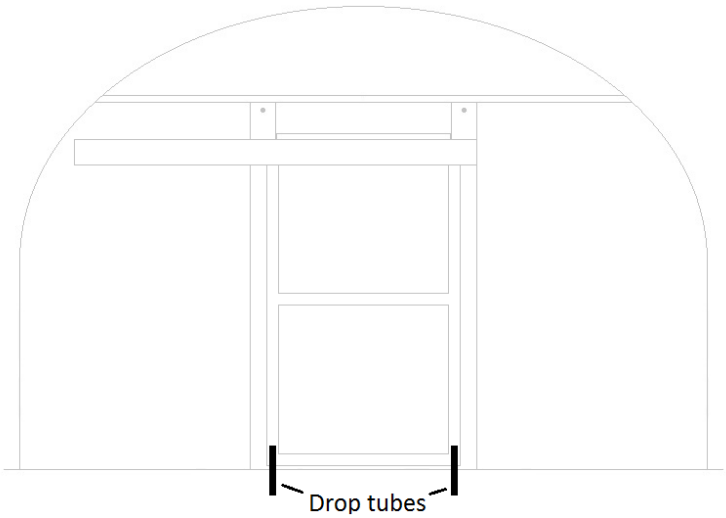


Fig166

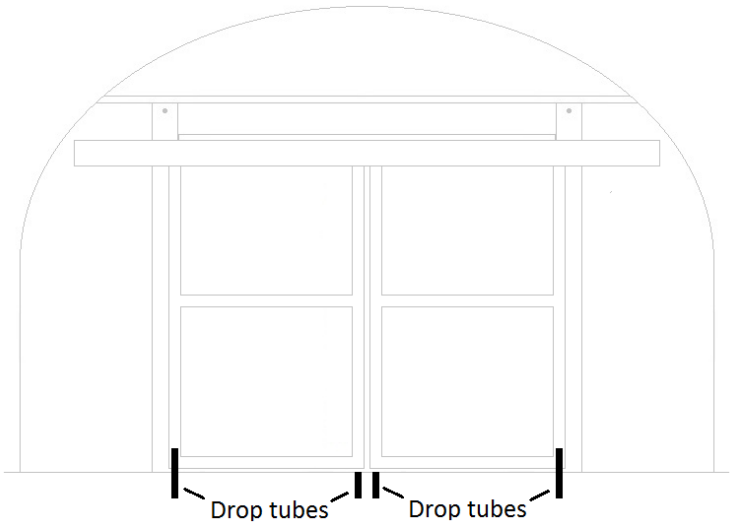


Fig167

The drop tubes should be left protruding from the ground so that they overlap the doors by 2½ inches **(Fig168)**. On double sliding doors the two centre drop tubes can be driven into ground level **(Fig167)**.

Ensure you position the drop tubes slightly away from the door in order for it to slide freely between the polytunnel and the drop tubes.

Please Note: When the tunnel is being placed on to hard standing all sliding door drop tubes are replaced with 22mm base plates. These should be fitted in the same way as base plates on page 8.

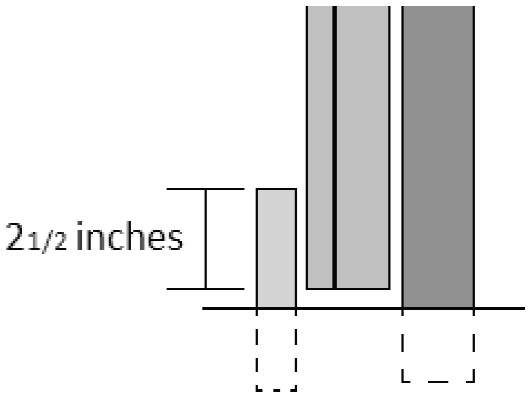


Fig168

A drop bolt is supplied with each sliding door. This acts as a door catch

There are two screw-in eyes for each drop bolt – the first of these 'eyes' should be screwed into the batten at the bottom corner of the door (on the side of the door where a catch would usually be fitted to lock/hold the door closed) in line with the drop tube approximately 4 inches up from the bottom edge of the door. The second 'eye' should be screwed approximately 7 inches higher than the first **(Fig169 & Fig170)**.

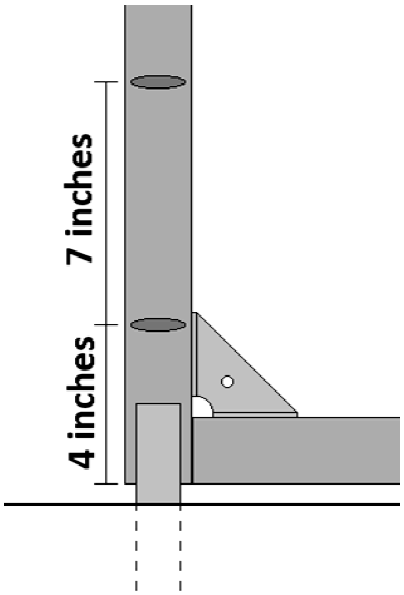


Fig169 – single sliding door

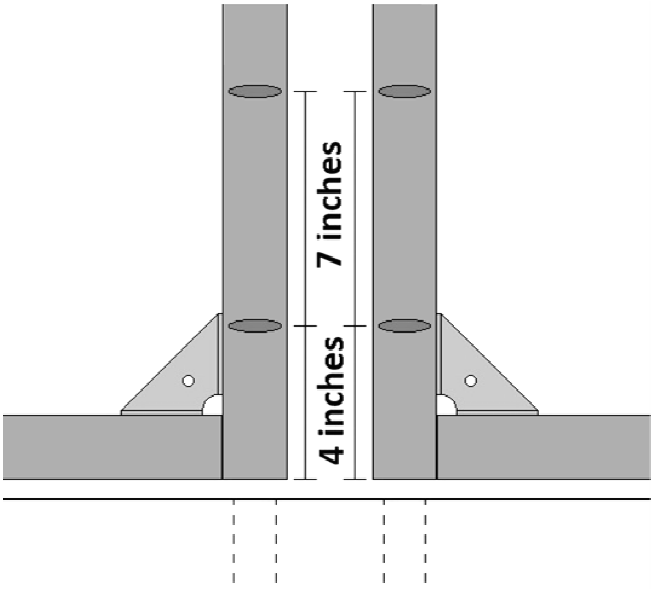


Fig170 – double sliding doors

Drop the bolt through the 'eyes' and into the drop tube – this will hold the door shut **(Fig171)**. Open the door and drop the bolt into the other drop tube to hold the door open **(Fig172)**.

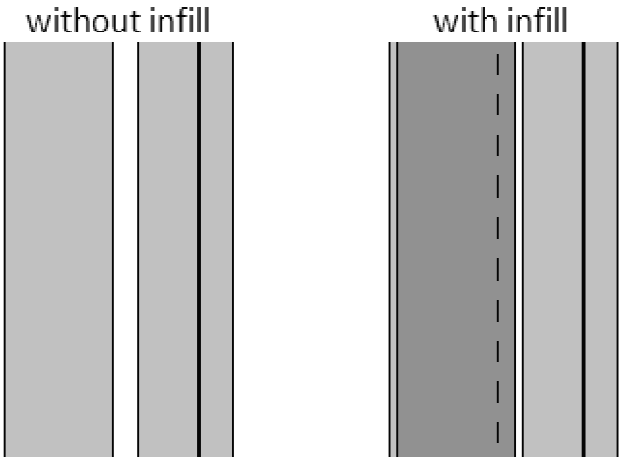
Fig171

Fig172

Two timber infills are supplied with each sliding door frame. These are nailed to the inside of the door posts and fill the gap between the frame and the door **(Fig173).**

Please note: at no point should they come in contact with the door as this would stop it from sliding smoothly.

Fig173



Well done! You are now ready to begin growing and relaxing in your Premier Polytunnel!