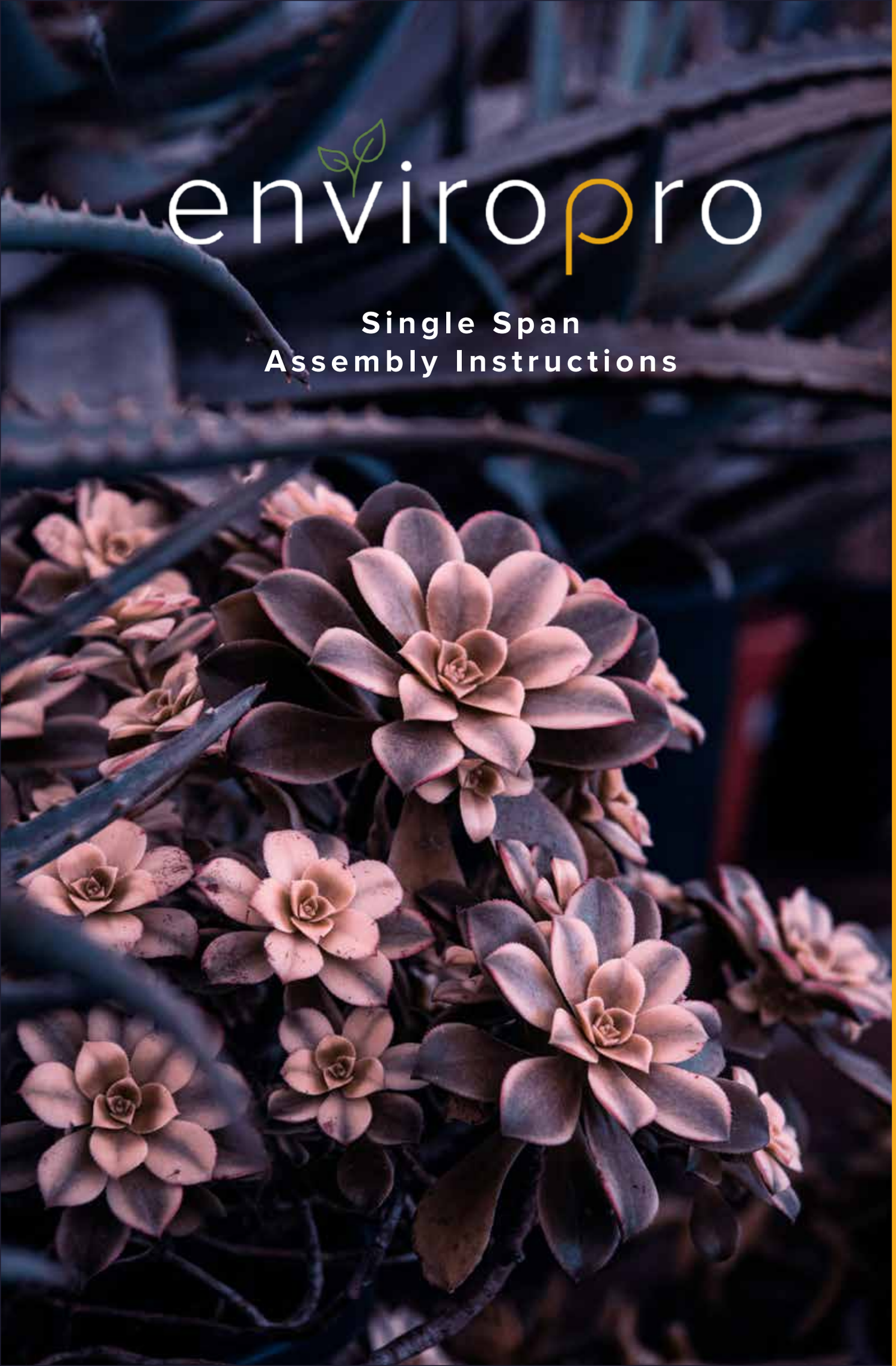


enviropro

Single Span
Assembly Instructions

INS475

Thank you for purchasing your EnviroPro Single Span polytunnel

Before you begin:

- Check that all parts are present
- Read the instructions

Your safety matters

Please take care during construction and follow all guidance provided.

Need help?

01282 873 120

info@npstructures.co.uk

northernpolytunnels.co.uk

Important

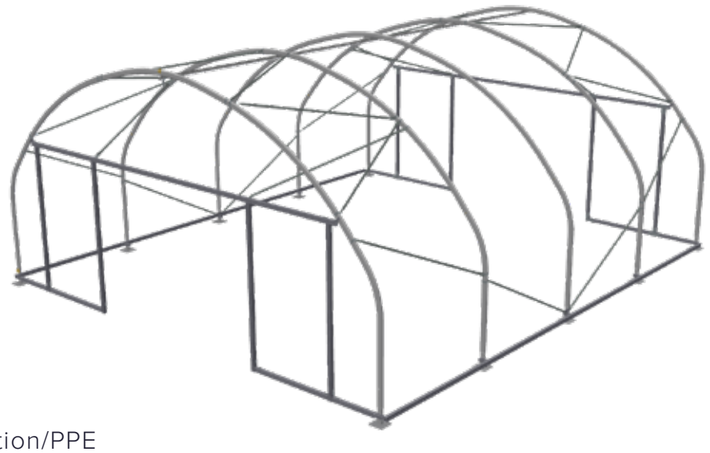
Failure to follow these instructions may compromise the structural integrity of your polytunnel.

NP Structures Ltd accepts no liability for damage resulting from misuse or failure to follow instructions.

Drawings are not to scale.

Tools Required

Stakes/Pegs
Spirit Level
Spade
Tape Measure
Marker Pen
String
Hammer
Stanley Knife
Battery Drill
Angle Grinder
Wire Cutters
Spanners
Gloves
Goggle/Eye Protection/PPE
G-clamp



northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

Contents

northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

Tools needed: tape measure, string, spirit level, markers/canes

Planning Foundations

Use the diagram on the next page to lay out your foundations accurately

Choose a level, even site where possible. Avoid stony ground, especially if trenching in the polythene, as this may cause damage. Allow at least 1 metre of working space around the structure.

To mark out the site

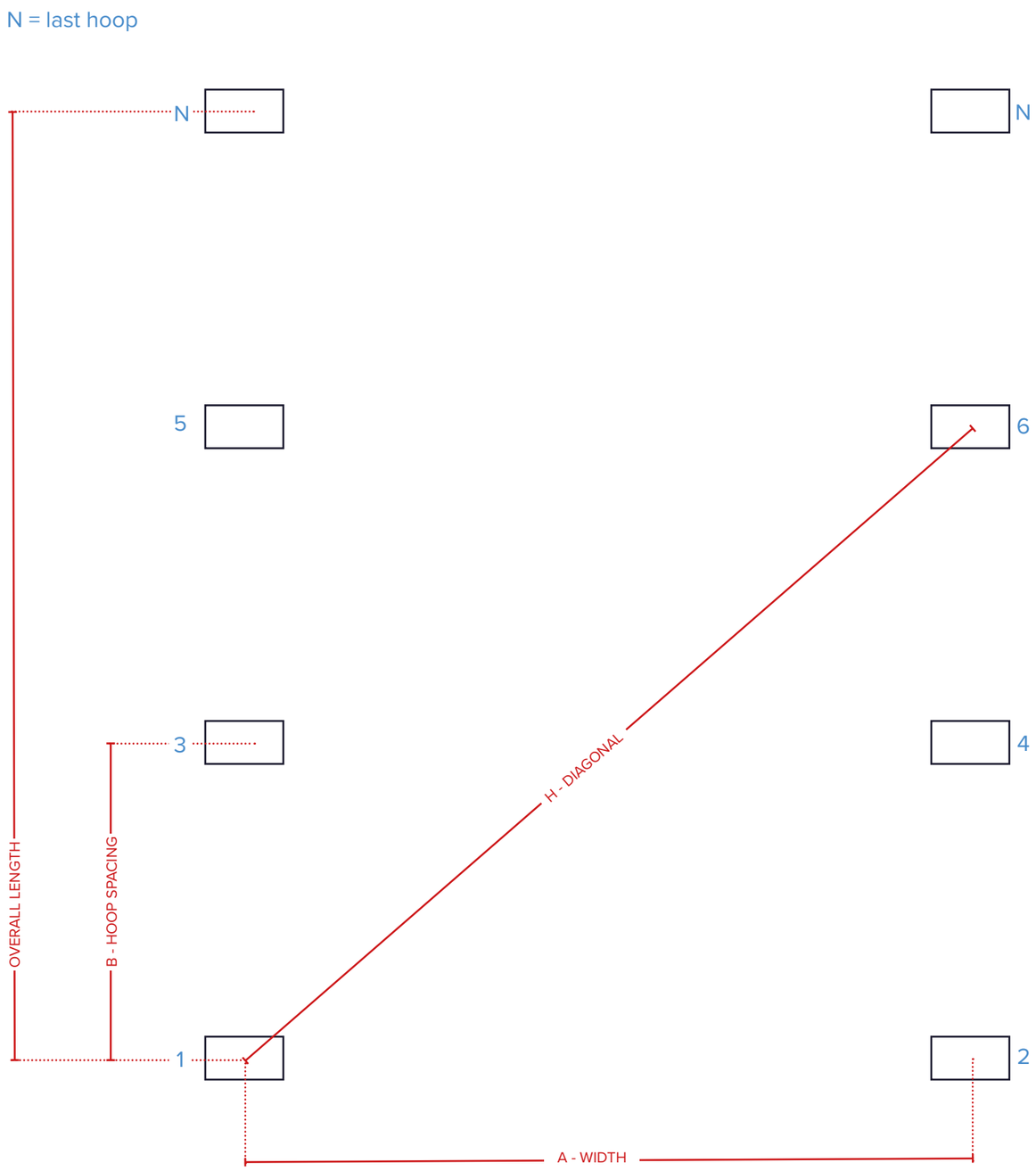
- Use string (thin polypropylene twine) and pegs to plan out your foundation positions
- Use the table provided to check the diagonal and hoop spacing measurements — this ensures your layout is square.
- Mark the stringline at each hoop position and place a ground tube at each mark.

The diagram is for illustrative purposes only. Repeat the layout process according to the number of hoops you have ordered.

All measurements are taken from the centre of the foundation.

Foundation Measurements

Tunnel Width	**A - WIDTH** *Centre to Centre*	**B - HOOP SPACING** *Centre to Centre*	**H - DIAGONAL** *Centre to Centre*
5 metres	5000mm	2500mm	7071mm
6 metres	6000mm	2500mm	7810mm
7 metres	7000mm	2000mm	8062mm
8 metres	8000mm	2000mm	8944mm
9 metres	9000mm	2000mm	9849mm

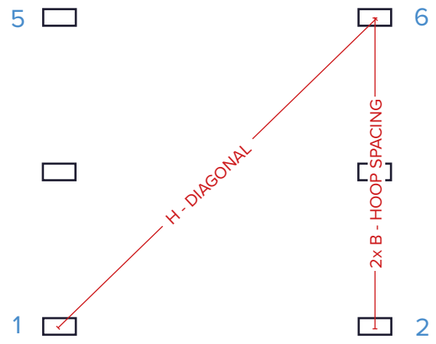


northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

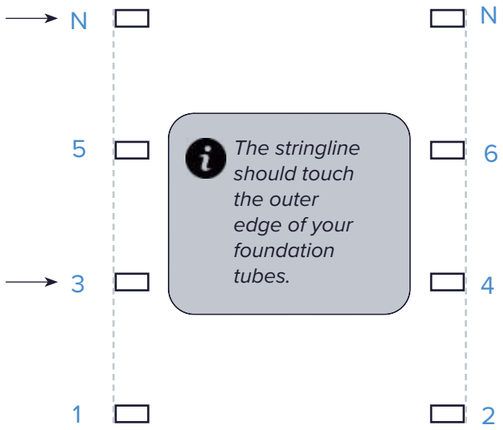
Method

You may wish to mark out your foundation placement with markers or stakes before positioning the actual foundations. For “Foundation Measurements” see page 6.

1. Position foundations 1 and 2.
Check **A - WIDTH** is correct.
Check alignment of the two foundations.



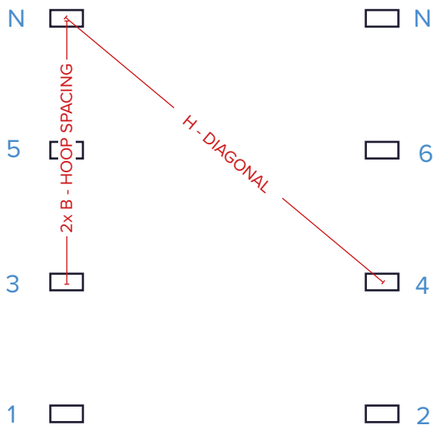
2. Position foundation 6
Check **H - DIAGONAL** is correct.
Check **2x B - HOOP SPACING** is correct.
Repeat for foundation 5.



The stringline should touch the outer edge of your foundation tubes.

3. Stringline the length of the tunnel from 1 and 2 to last foundations (**N**).

Use the stringline to help you place your last foundations (**N**) as well as any other foundations e.g. 3 and 4.



4. Check alignment of the far end of your polytunnel:

Check **H - DIAGONAL** is correct.
Check **2x B - HOOP SPACING** is correct.
Repeat on each end foundation.

Installing Base Plate Foundations

1. Position the Base Plates

Use your string line as a guide. For “Foundation Measurements” see page 6.

2. Mark and Drill

Mark the position of the four fixing holes on each base plate.

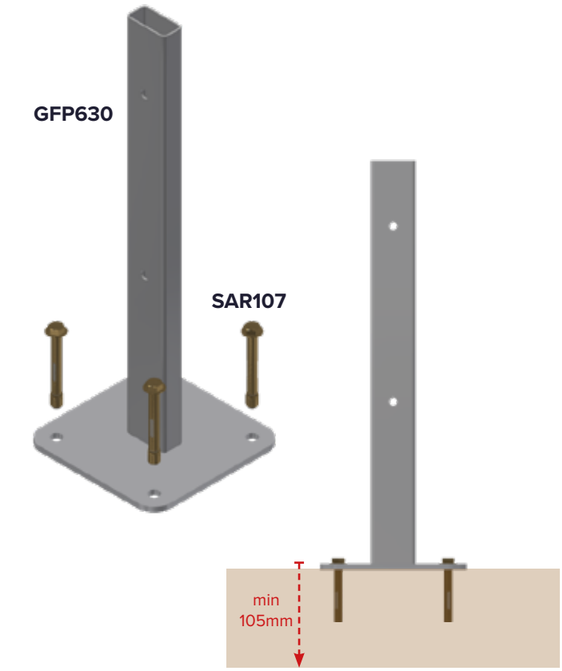
Drill four holes per plate: **12mm diameter x 100mm** deep into the concrete.

Vacuum out dust from each hole to allow full depth insertion of the anchor bolts.

3. Fix in Place

Insert the sleeved anchor bolts through the base plate and into the holes.

Hammer them fully in, then tighten the bolts securely.



It is essential that the anchor bolt sleeves are fully inserted to ensure a secure fit.

For “Installing Concrete Foundations” see page 10

northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

Installing Concrete Foundations

1. Dig the Foundation Holes

Follow the diagram for hole size. For “Foundation Measurements” see page 6.

Ensure holes are evenly spaced and aligned.

2. Pour Concrete into Each Hole

Recommended: ready-mix GEN3, 20 N/mm², 60mm slump.

3. Set the Ground Tubes (GFT630) in Concrete

Insert a concrete bar into the bottom hole of the foundation, then position the ground tubes in the concrete and align them using a string line - they must be straight and level.

> *Ground level is etched onto ground tube. Arrow pointing up.*

4. Allow Concrete to Set

Let the concrete cure for at least 48 hours (longer in cold or wet weather).

5. Mark the End Frame Lines

Once set, run a string line across the inside face of the first and last hoop to mark the lines for the end frame uprights.

Digging Holes For End Frame

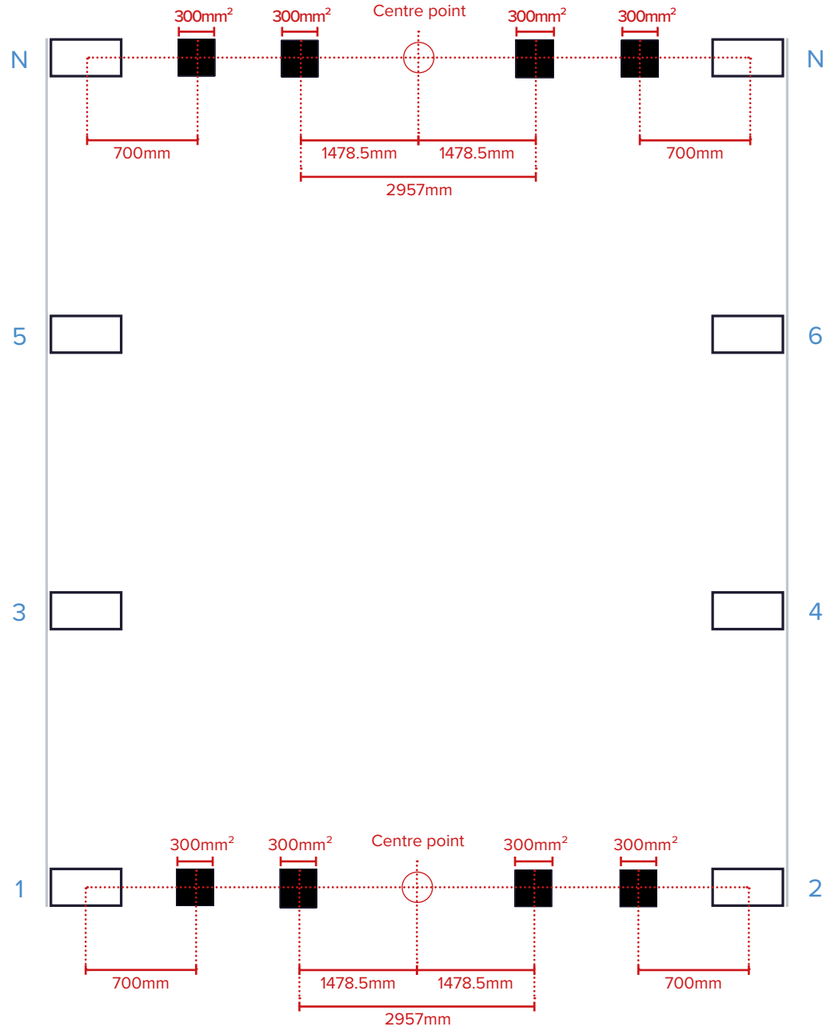
At each gable end, mark the post positions as shown in the diagram. Then dig:

- Two 300mm² holes for the door frame posts
- Two 300mm² holes for the outer upright posts (not required on 5m tunnels)

> *For 5m wide tunnels, **do not** dig outer 300mm² holes.*

All holes should be 300–400mm deep.

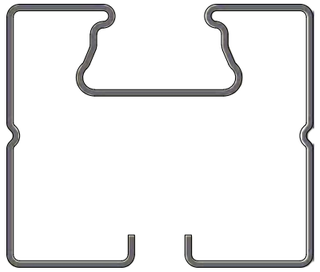
N = last hoop



northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

Familiarise Yourself With The Steel Box Profile

This steel box profile (WBP) is used throughout the construction of your EnviroPro Single Span Polytunnel, including end frames, base rails, side rails. It is useful to familiarise yourself with this profile to avoid confusion.


WBP

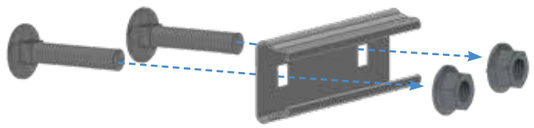
The top (larger) channel is for wiggle wire which is used for attaching the cover. The bottom (smaller) channel is used to slide M8 bolts with cotter in for fixing brackets.

The top wiggle wire channel should be on the outside of the tunnel, and the bolts should be on the inside.

Using Cotters

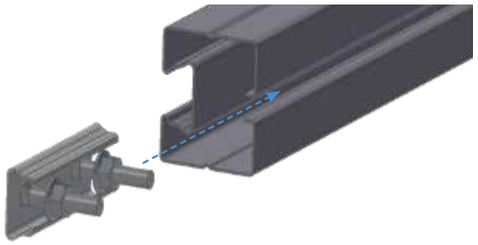
Cotters are used throughout for attaching brackets to the steel box profile. Cotters come in various sizes.

1. Assemble cotter, bolts, and bracket

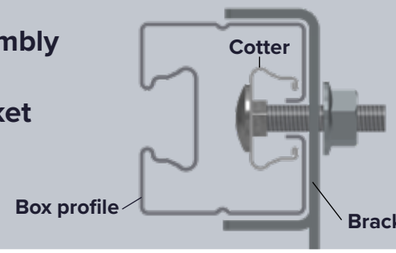


2. Finger tighten cotter

3. Slide cotter and bracket assembly into box profile



Final Assembly with Bracket

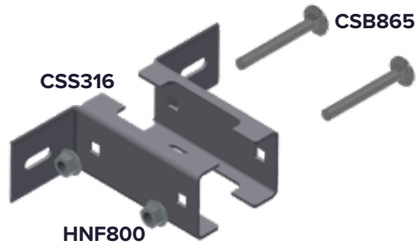


> ⚠ *Take note of the cotter positions at each stage of the build.*
>
> ***It isn't possible to retrofit cotters**, therefore it is critical that cotters are in position before the section is fitted to the frame.*

Pack(s): CSS206, CSS204

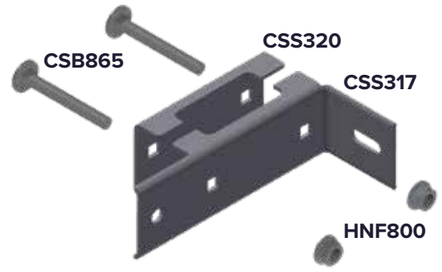
Bracket Assembly

Inner Hoop Foundations = a



x2 per hoop

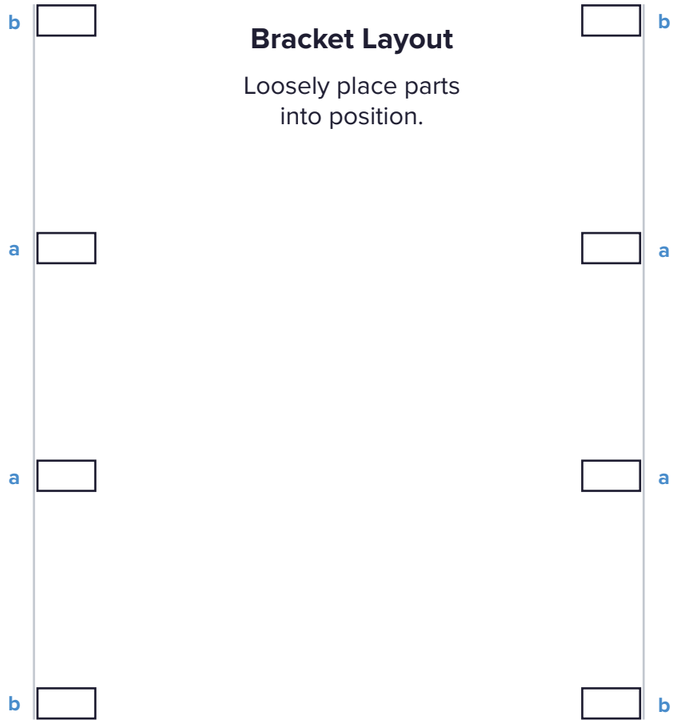
End Hoop Foundations = b



x4 total

Bracket Layout

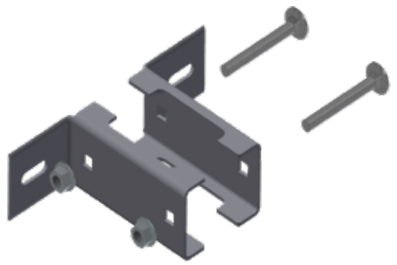
Loosely place parts into position.



For all inner hoop foundations (a)

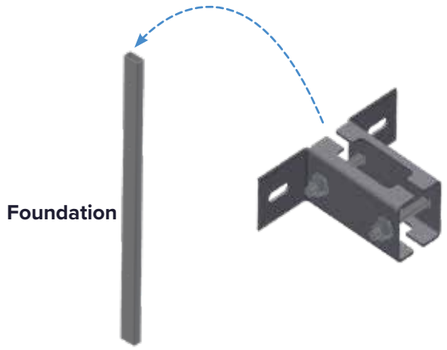
Leave bolts hand-tightened at this stage.

1. Loosely assemble inner hoop base rail bracket

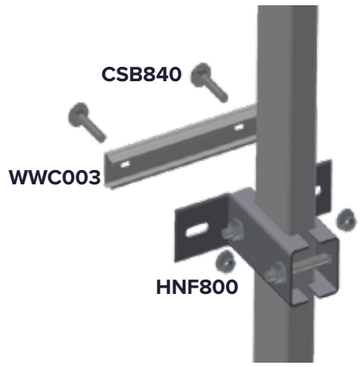


For “Bracket Assembly” see page 13

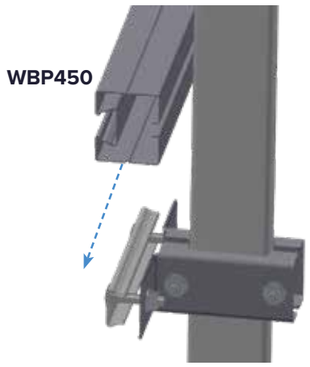
2. Slide bracket onto inner foundations



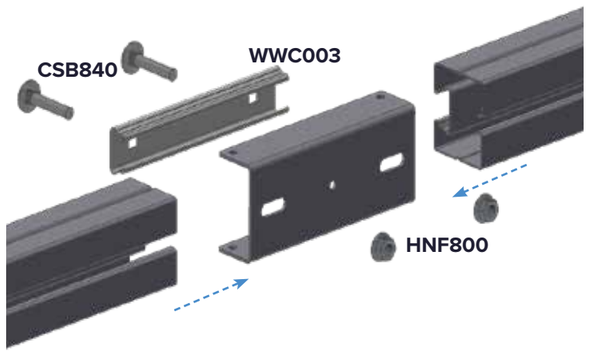
3. Loosely attach cotter



4. Slide base rail onto brackets



5. Join base rail profiles



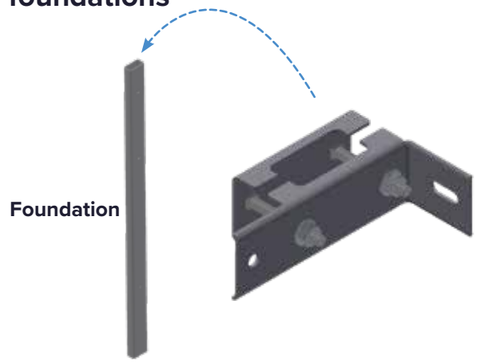
For all end hoop foundations (b)

Leave bolts hand-tightened at this stage.

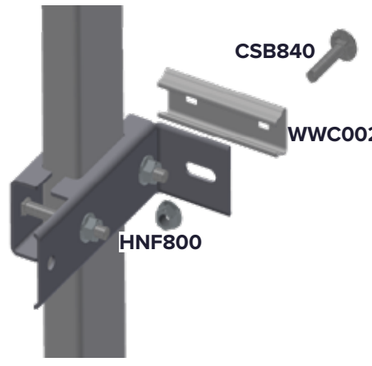
1. Assemble end hoop base rail bracket

For “Bracket Assembly” see page 13

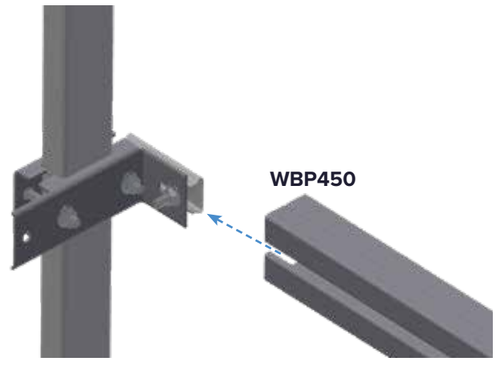
2. Slide bracket onto end hoop foundations

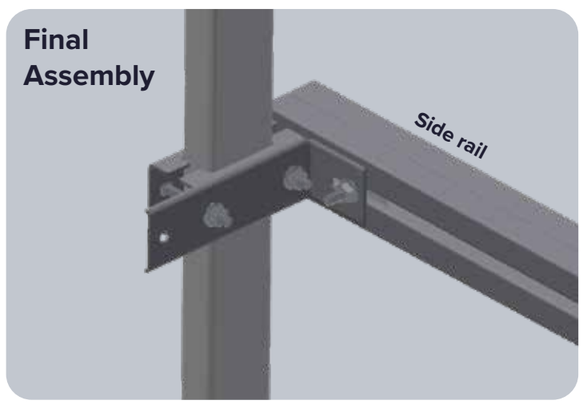


3. Loosely attach cotter

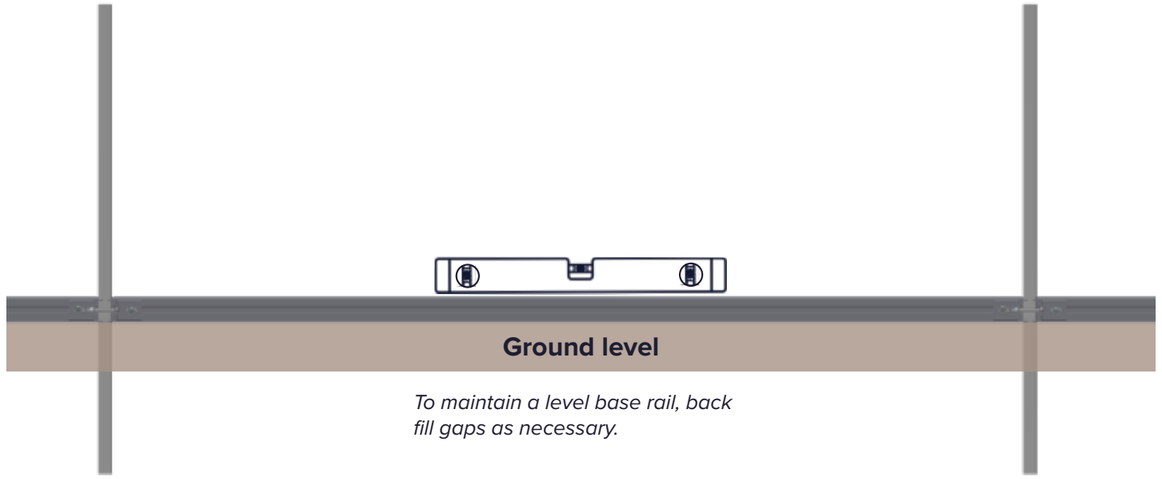


4. Slide base rails onto corner brackets





Level and tighten base rails



To maintain a level base rail, back fill gaps as necessary.

Maintaining a level base rail is of particular importance if you have side ventilation.

Hoop Assembly

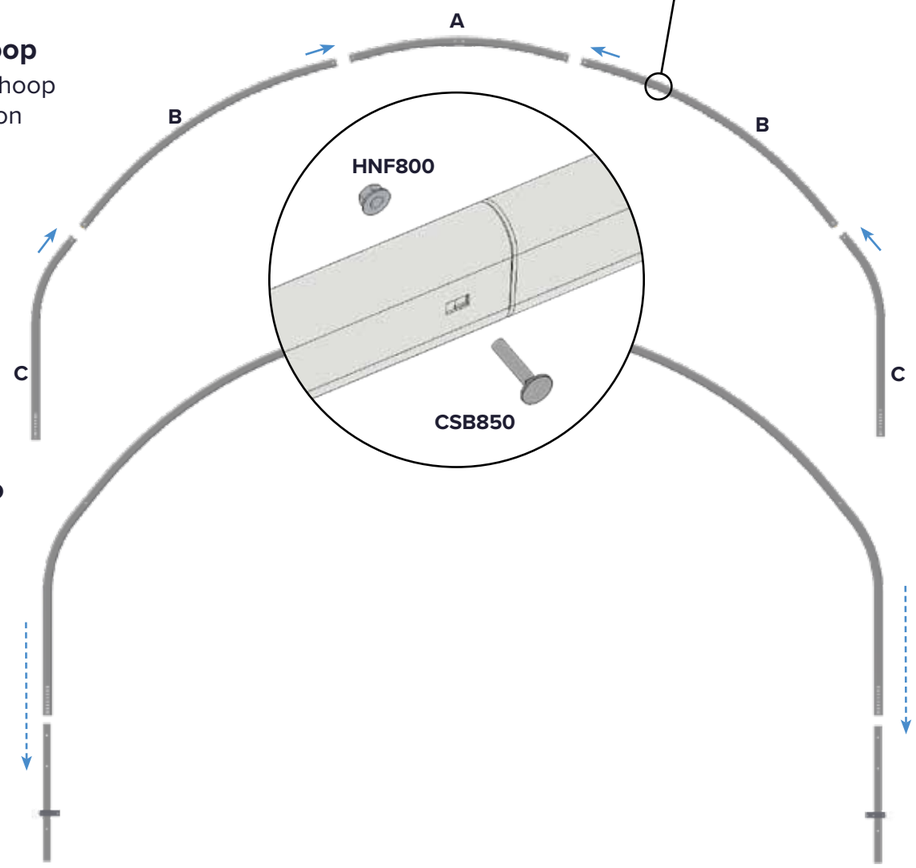
Hoop parts

Width	A	B	C
5 metre	CSS310	CSS301 x2	CSS311 x2
6 metre	CSS310	CSS303 x2	CSS311 x2
7 metre	CSS304	CSS305 x2	CSS311 x2
8 metre	CSS304	CSS306 x2	CSS311 x2
9 metre	CSS304	CSS307 x2	CSS311 x2

For each hoop

1. Slot together hoop

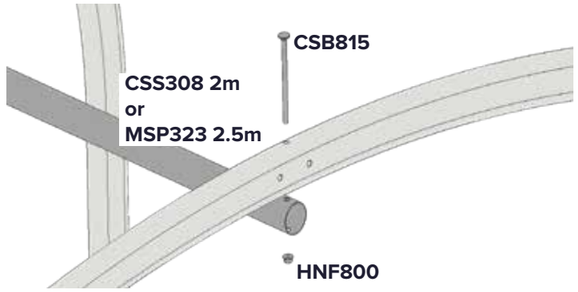
Slot together 5 piece hoop and fix each connection with nut and bolt.



2. Slide hoop onto foundation tubes

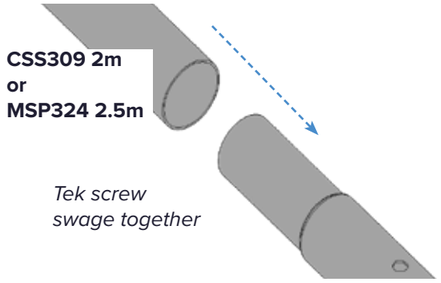
Install Ridge Bars

1. Attach first ridge bar



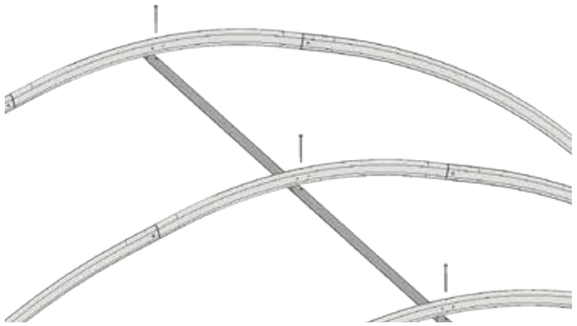
Starting at the front hoop, attach first ridge bar piece (CSS308) to hoop using nut and bolt.

2. Connect ridge tube lengths



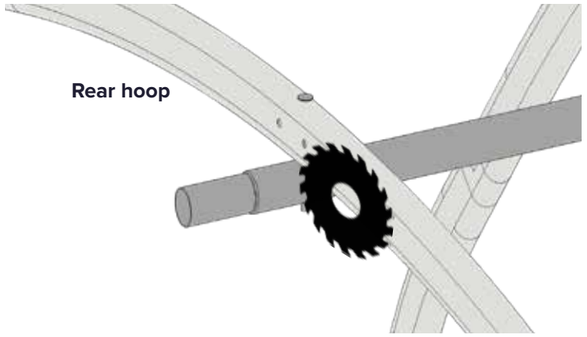
For each inner hoop, connect a length of ridge tube (CSS309)...

3. Fasten ridge tubes to hoops



...and attach to hoop with nut and bolt. Continue for each hoop.

4. Trim final ridge tube



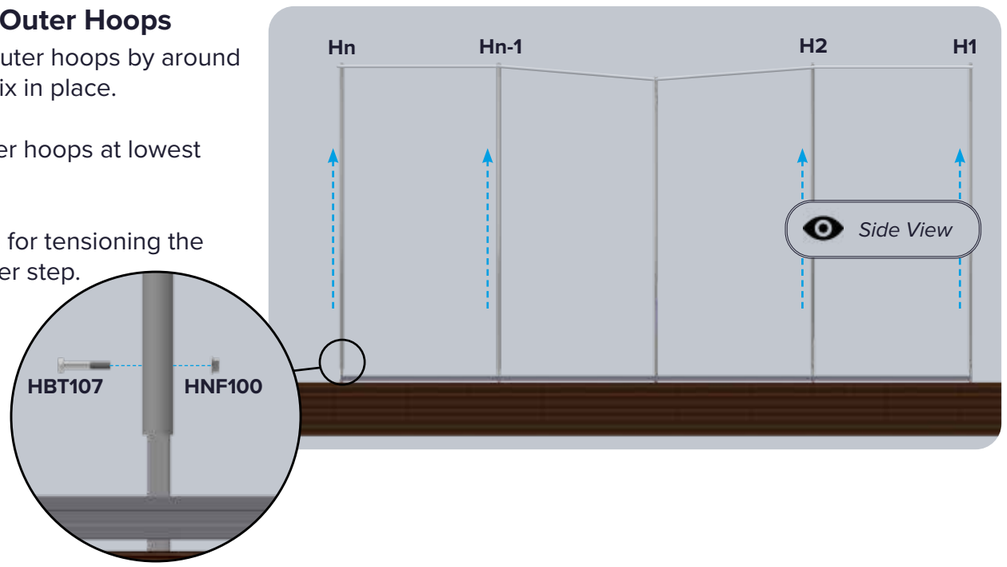
On the rear hoop, cut the protruding ridge bar flush with the outer face of the hoop. Insert plug RPP50.

Raise Two Outer Hoops

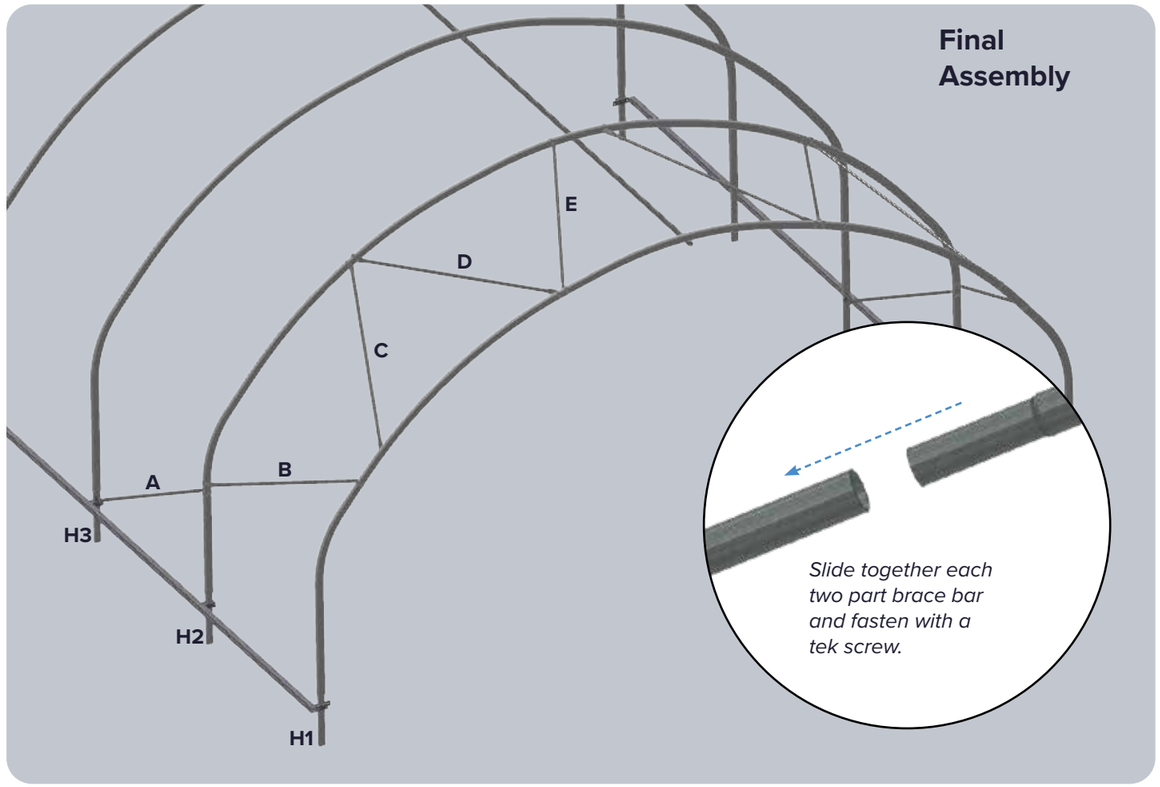
Lift the two outer hoops by around 100mm and fix in place.

Leave all inner hoops at lowest level.

We'll use this for tensioning the cover in a later step.



Brace Bar Configuration



Hoop bracing parts

Each brace bar consists of two parts. Use the table below to identify your required brace bar parts.

Key to Part Codes

Example: BBP160 Ø32

{BB}	{P/S}	{160}	{Ø32}
{Brace Bar}	{Plain/Swaged}	{Length in cm}	{Diameter in mm}

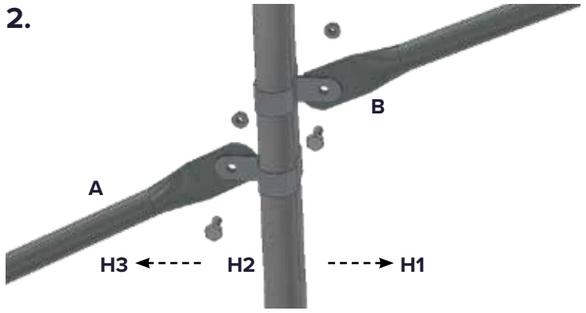
Width	Hoop Spacing	A	B	C	D	E
5 metre	2500mm	BBP160 Ø32 BBS100 Ø32	BBP160 Ø32 BBS100 Ø32	BBP160 Ø32 BBS100 Ø32	BBP160 Ø32 BBS100 Ø32	BBP160 Ø32 BBS100 Ø32
6 metre	2500mm	BBP160 Ø32 BBS102 Ø32	BBP160 Ø32 BBS102 Ø32	BBP160 Ø32 BBS102 Ø32	BBP160 Ø32 BBS102 Ø32	BBP160 Ø32 BBS102 Ø32
7 metre	2000mm	BBP160 Ø32 BBS060 Ø32	BBP160 Ø32 BBS060 Ø32	BBP160 Ø32 BBS060 Ø32	BBP160 Ø32 BBS060 Ø32	BBP160 Ø32 BBS060 Ø32
8 metre	2000mm	BBP183 Ø50 BBS040 Ø50	BBP183 Ø50 BBS040 Ø50	BBP160 Ø32 BBS071 Ø32	BBP160 Ø32 BBS071 Ø32	BBP160 Ø32 BBS071 Ø32
9 metre	2000mm	BBP183 Ø50 BBS040 Ø50	BBP183 Ø50 BBS040 Ø50	BBP183 Ø50 BBS040 Ø50	BBP160 Ø32 BBS094 Ø32	BBP160 Ø32 BBS094 Ø32

Fitting Brace Bars

1. Place keyhole brackets

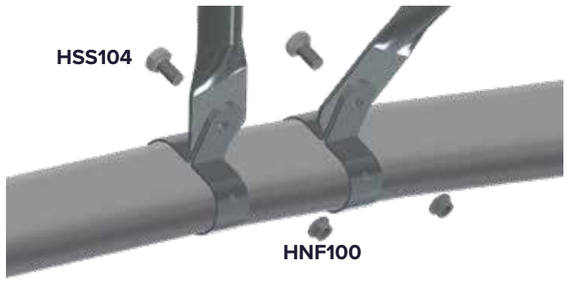
Place keyhole brackets on hoops. Splay the bracket to slide over the hoop.

2.



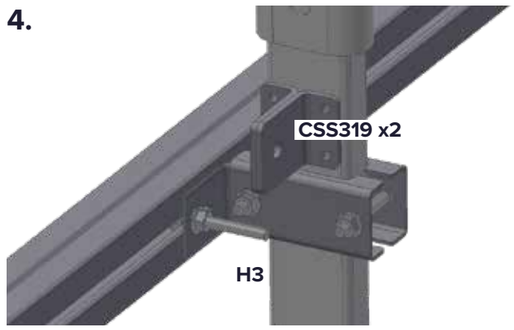
Note bracket configuration for brace bar **A** & **B** on hoop **H2**.

3. Attach brace bars

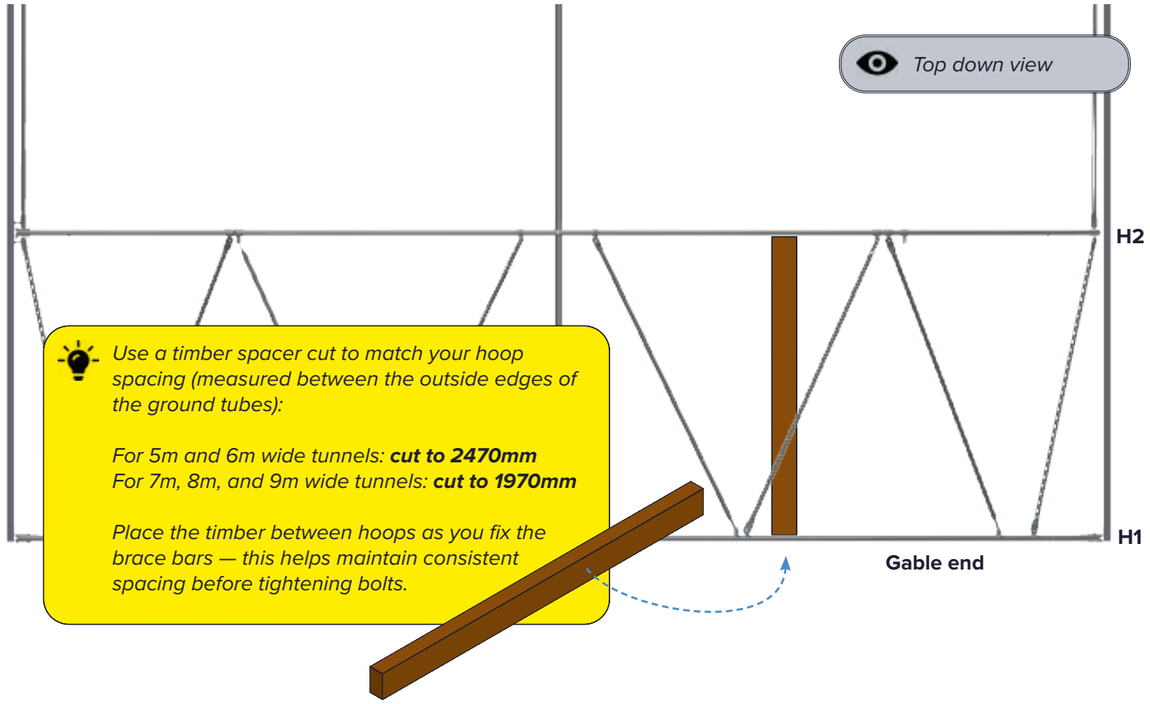


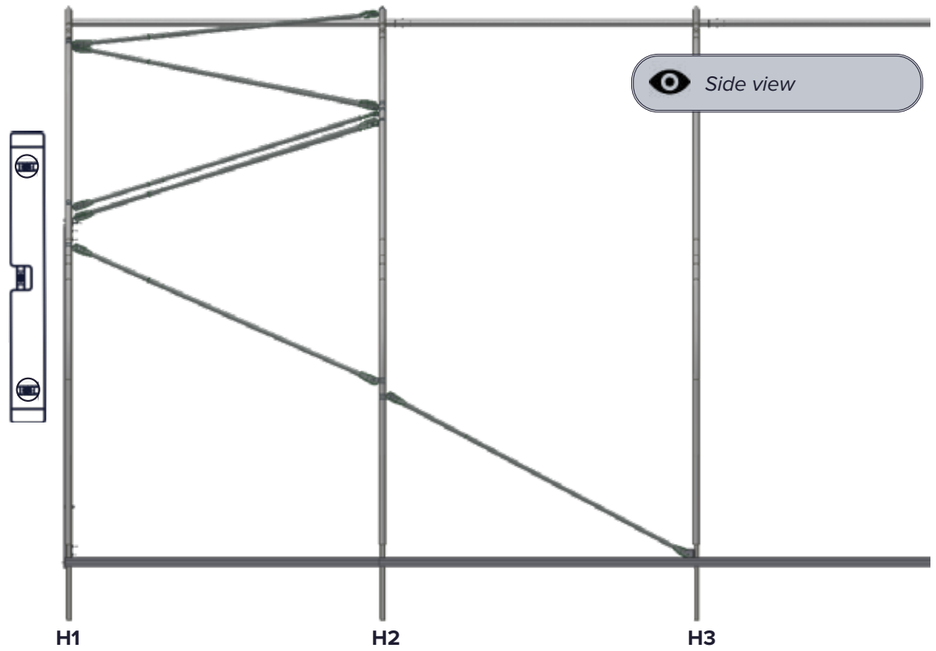
Attach brace bars to key hole clamps with nut and bolt.

4.



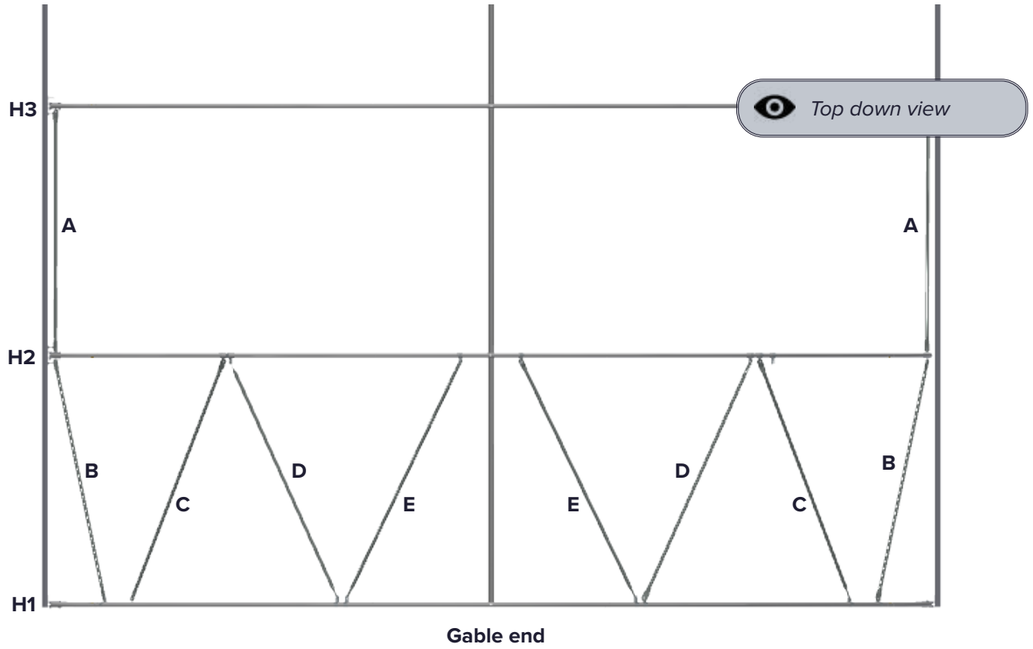
Note hoop **H3.** Attach bracket with tek screw and bolt brace bar **A** to bracket.





Ensure all hoops are vertical before fully tightening up. Fix brackets to hoops with tek screws.

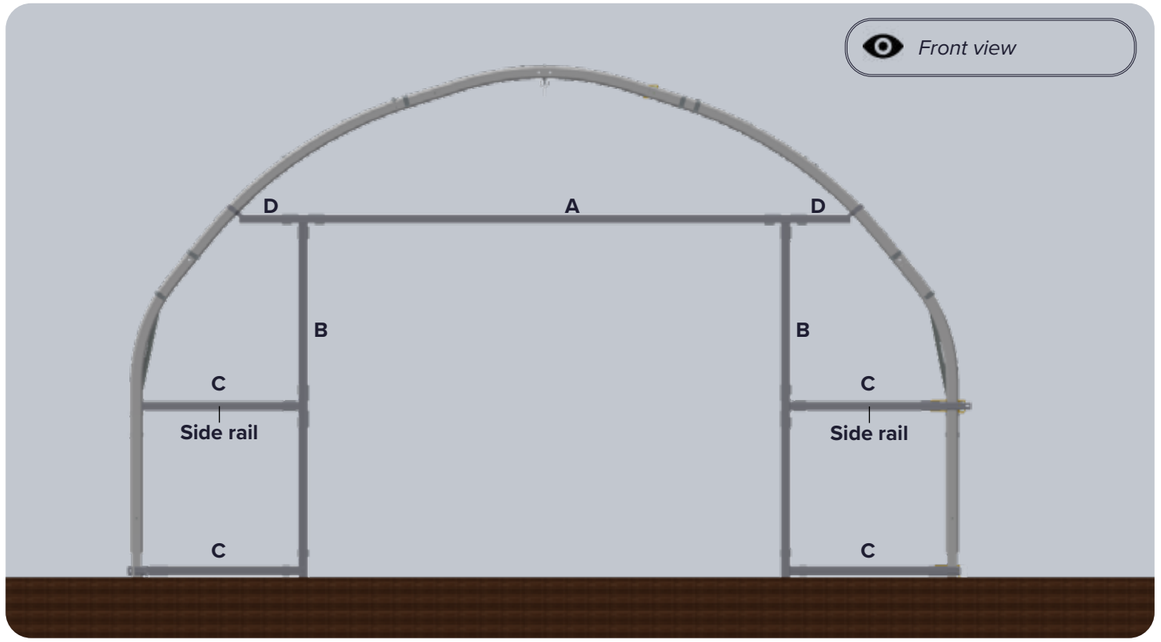
Refer to image below for final configuration. Mirror configuration to complete the front end bracing as pictured below. Then repeat at the rear end of the tunnel.



Gable End Frame Configuration

Review the diagrams and tables for the correct gable end configuration.

5m wide configuration



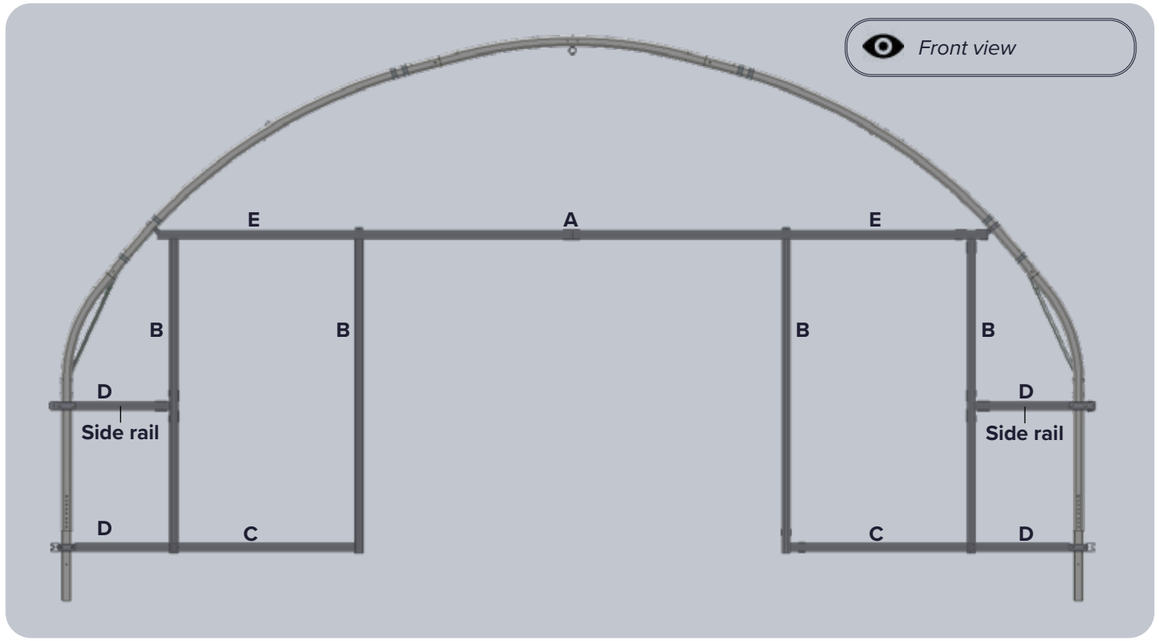
Side Rail *only required if polytunnel includes side rails.*

Gable End Parts

Box profile lengths are oversized and require cutting to size.

Width	A	B	C	D	Fittings
5 metre	WBP290 x1	WBP290 x2	WBP210 x1	WBP080 x2	CSS200

6m & 7m wide configuration



Side Rail *only required if polytunnel includes side rails.*

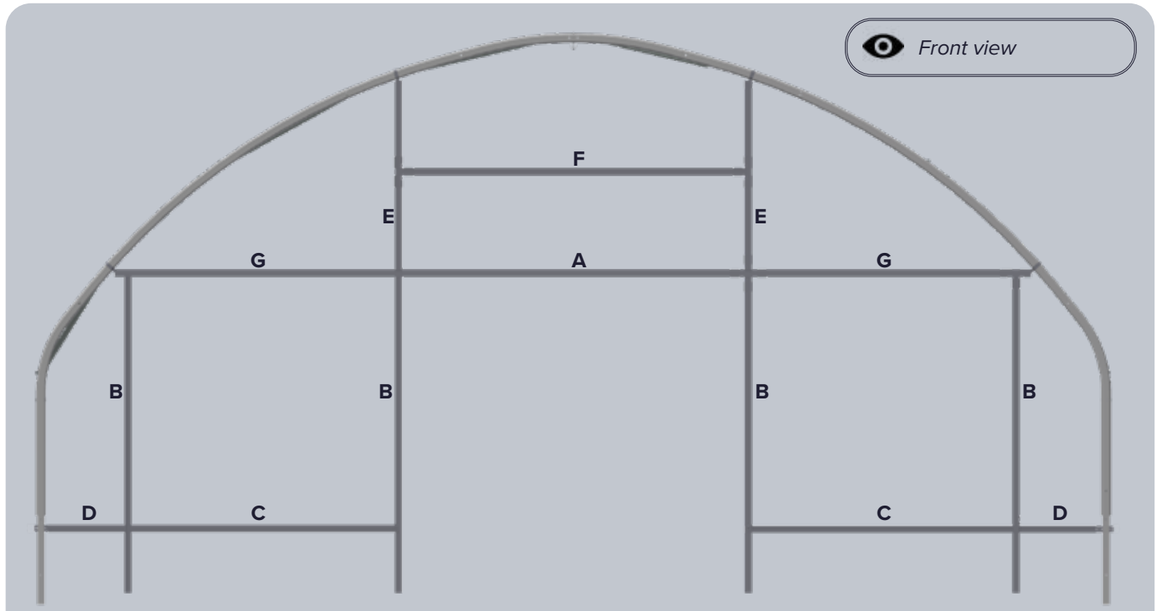
Gable End Parts

Box profile lengths are oversized and require cutting to size.

Width	A	B	C	D	E	Fittings
6 metre	WBP290 x2	WBP290 x4	WBP080 x2	WBP080 x4	WBP170 x2	CSS201
7 metre	WBP290 x2	WBP290 x4	WBP170 x2	WBP080 x4	WBP170 x2	CSS201

For "8m & 9m wide configuration" see page 24

8m & 9m wide configuration



Gable End Parts

Box profile lengths are oversized and require cutting to size.

***Side Rail** only required if polytunnel includes side rails.*

Width	A	B	C	D
8 metre	WBP290 x1	WBP290 x4	WBP210 x2	WBP080 x4
9 metre	WBP290 x1	WBP290 x4	WBP250 x2	WBP080 x4

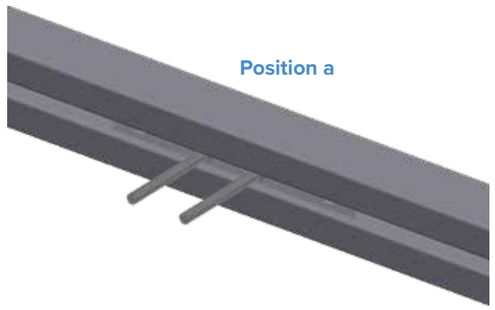
Width	E	F	G	Fittings
8 metre	WBP210 x2	WBP290 x1	WBP210 x2	CSS201
9 metre	WBP210 x2	WBP290 x1	WBP290 x2	CSS201

northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

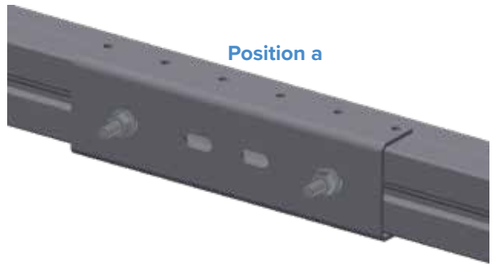
Fitting Gable End Frame

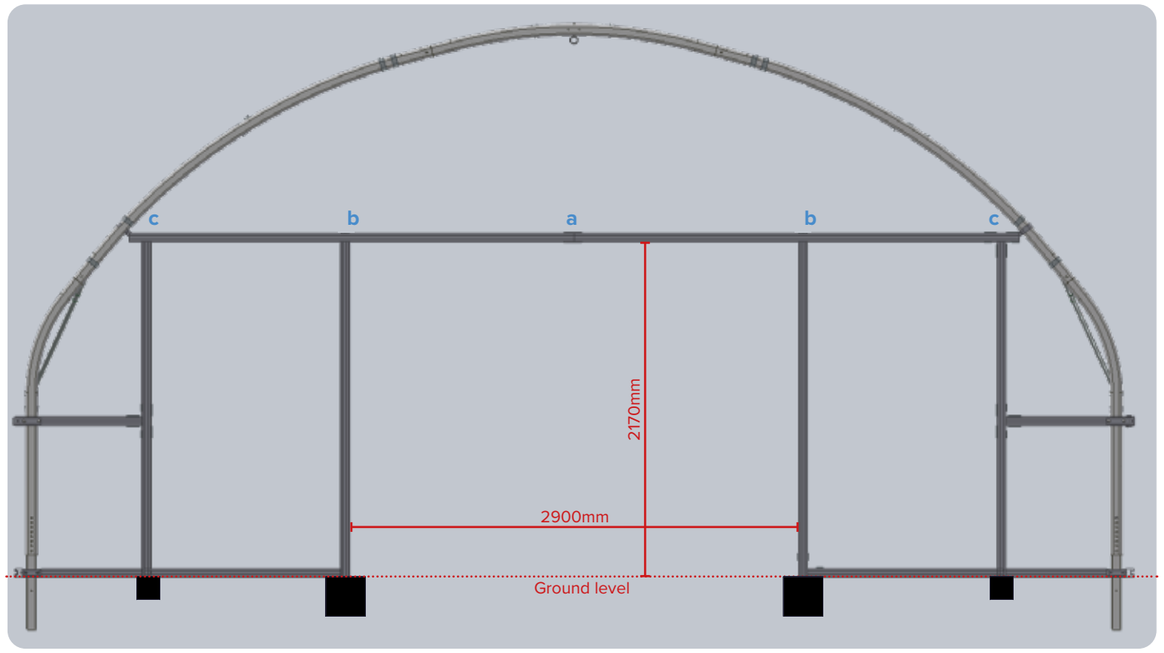
Finger tighten only at this stage.

1. Assemble lintel. Fit to centre of 2.9m length.



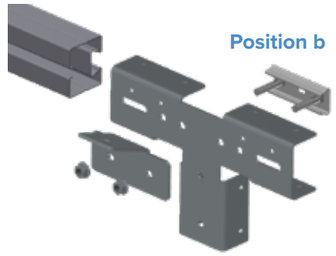
If above door louvre supplied:

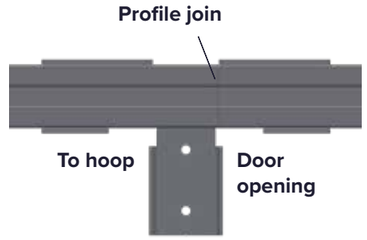


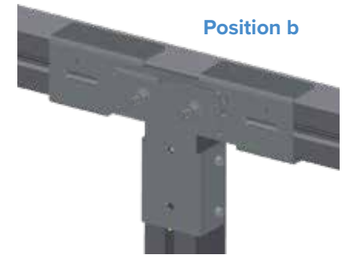


2. Join lintel using door post brackets at position b

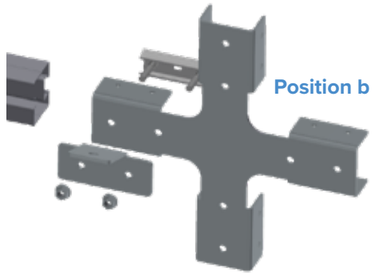
For 5m, 6m & 7m polytunnels

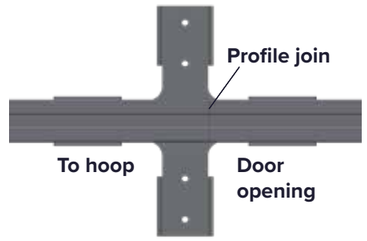


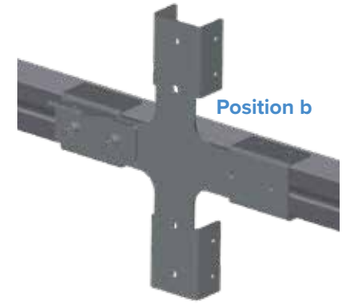




For 8m & 9m polytunnels

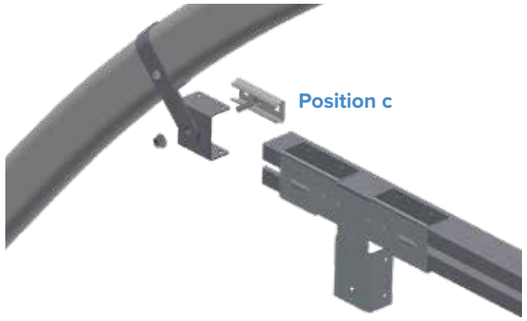


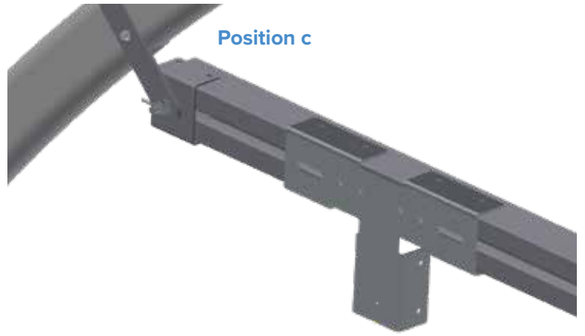




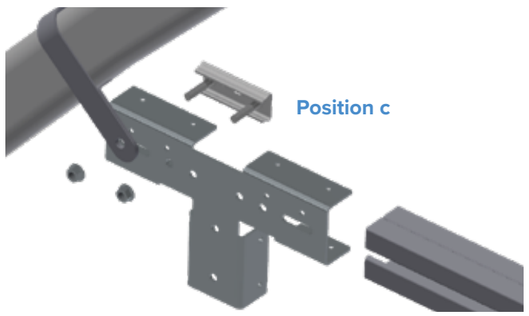
3. Attach lintel to hoop at position c

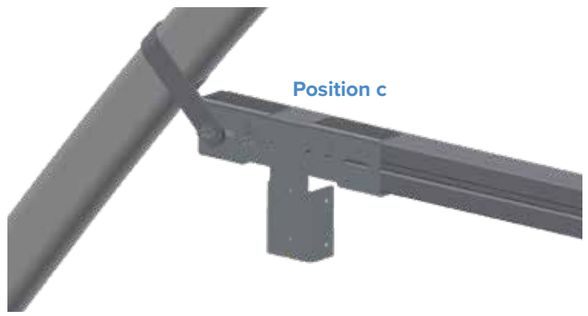
For 5m polytunnels





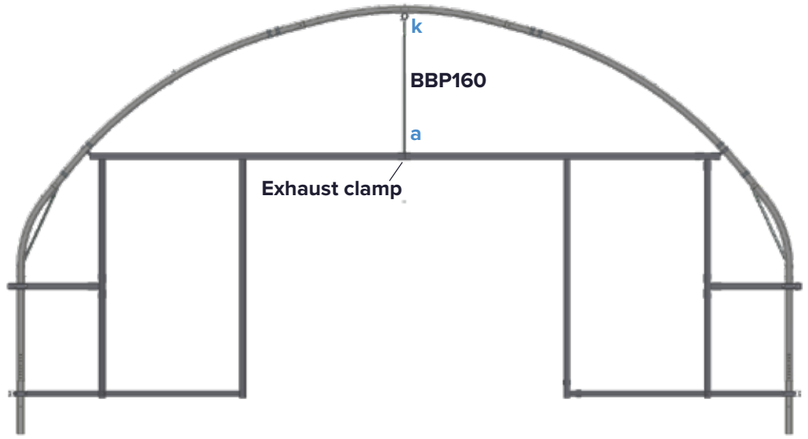
For 6m, 7m, 8m & 9m polytunnels

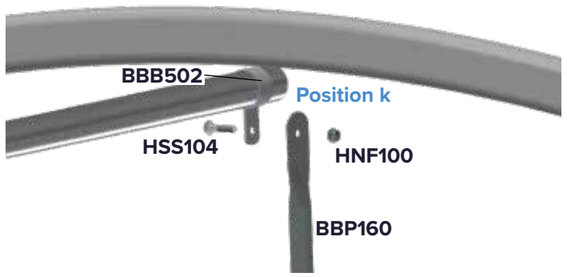




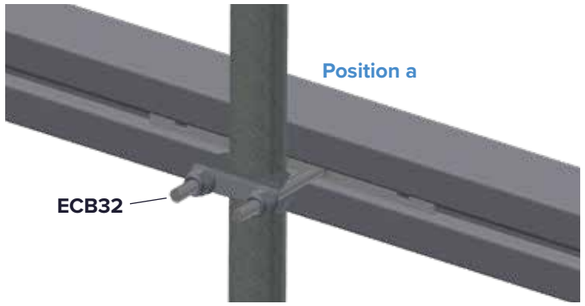
4. Install lintel centre support

Skip if installing louvres or 8m, 9m tunnel.



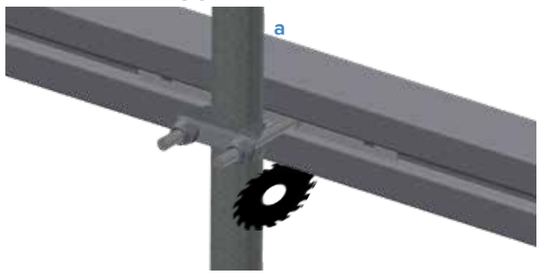


Attach centre support to ridge bar with bracket.

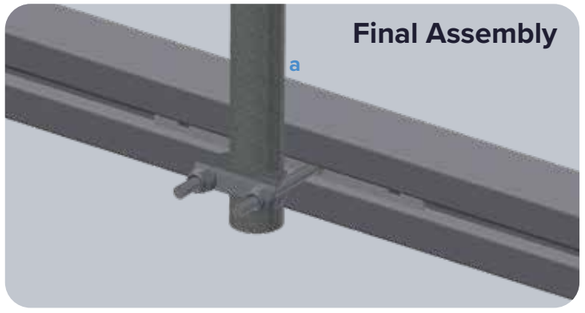


Attach centre support to lintel with exhaust clamp.

Trim centre support

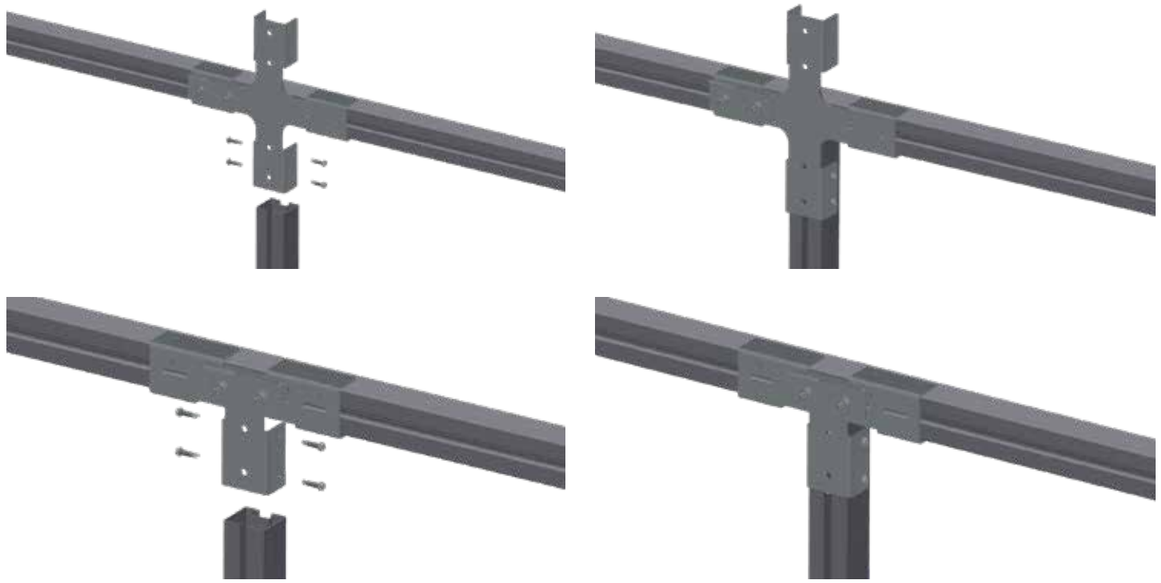


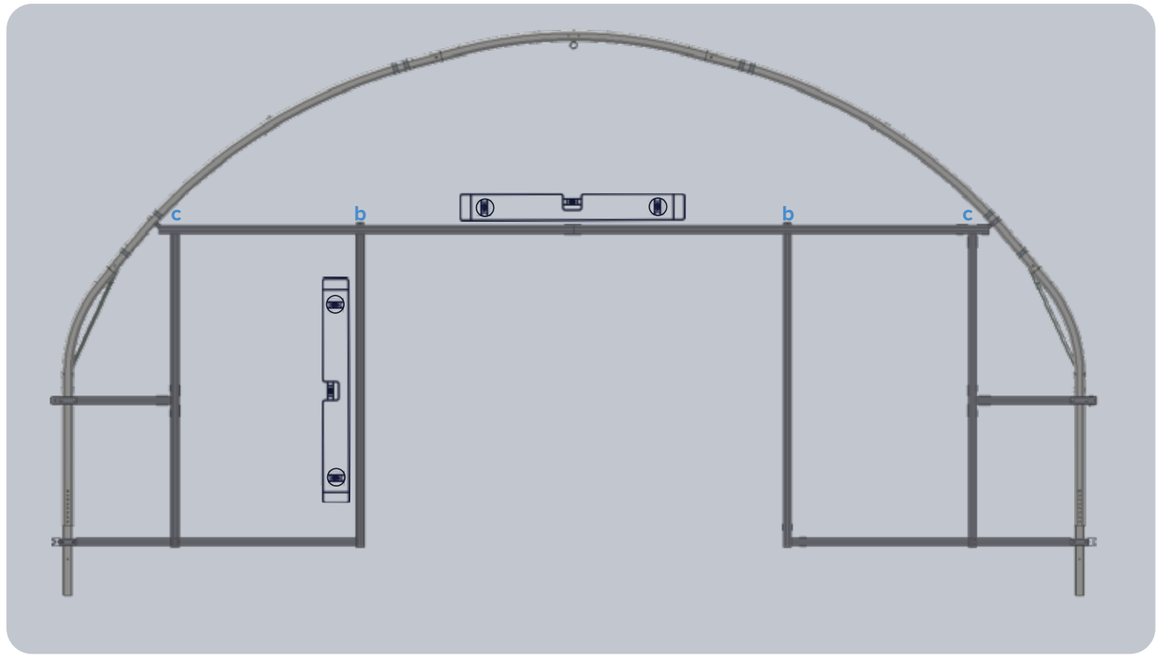
Then cut centre support flush with the underside of the lintel.



5. Fit door posts

Position **b** & **c**

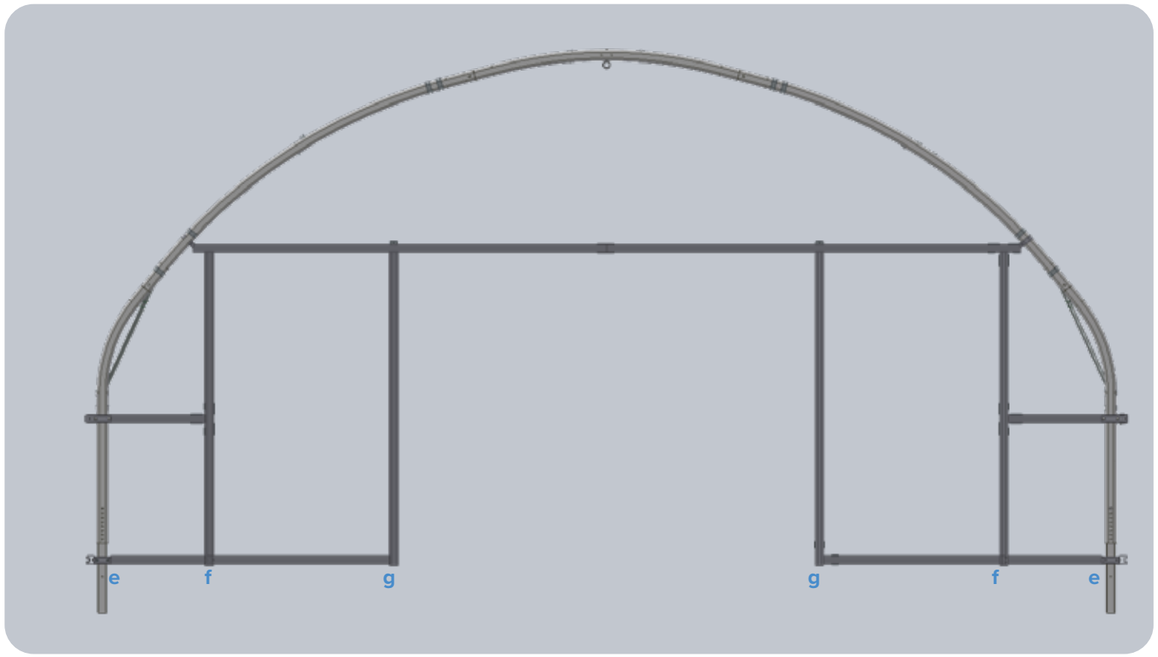




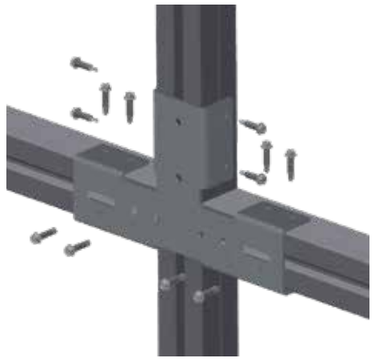
Check levels on all bars before tek screwing.

northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

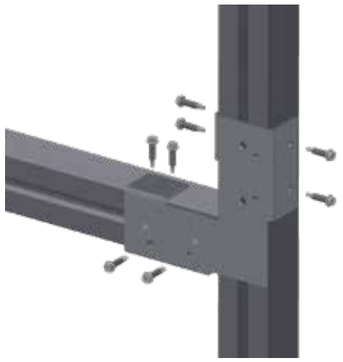
6. Fit base rail



Position f



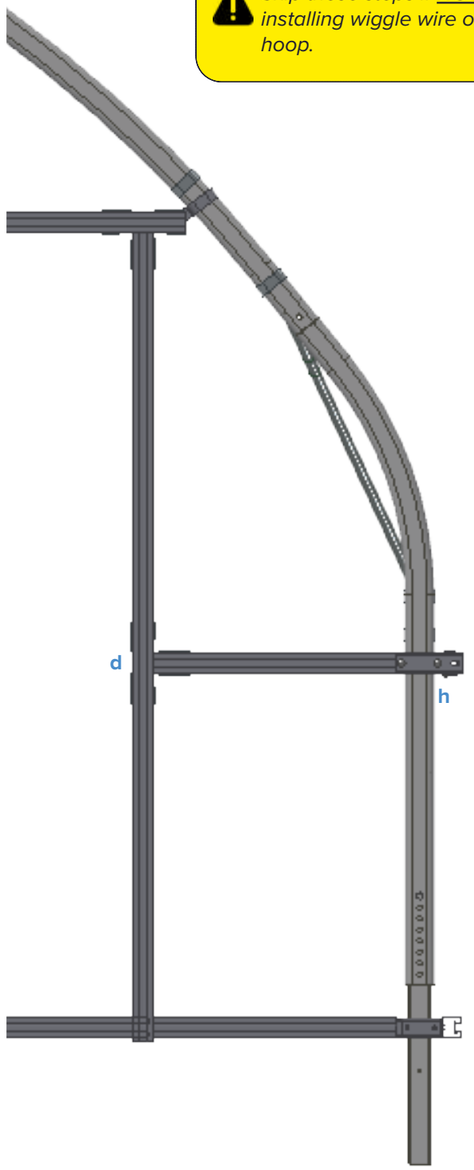
Position g



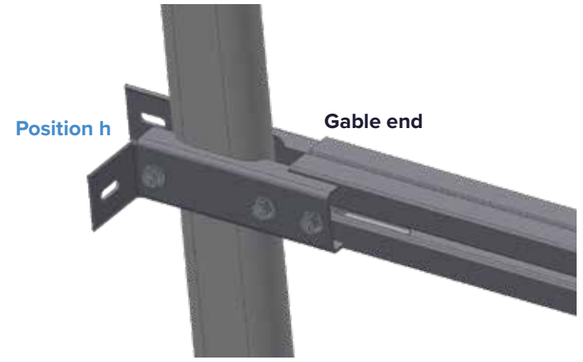
Position e

7. Attach gable end side rail (if required)

> ⚠ *Skip these steps if **NOT** installing wiggle wire over hoop.*

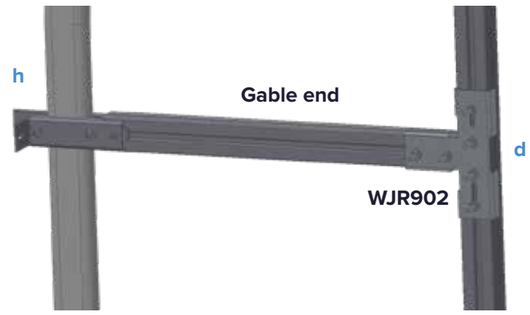


Attach gable end side rail to hoop using a side rail bracket. **Only on sides with side rail**.



Finger tighten to hold in place.

Attach to upright

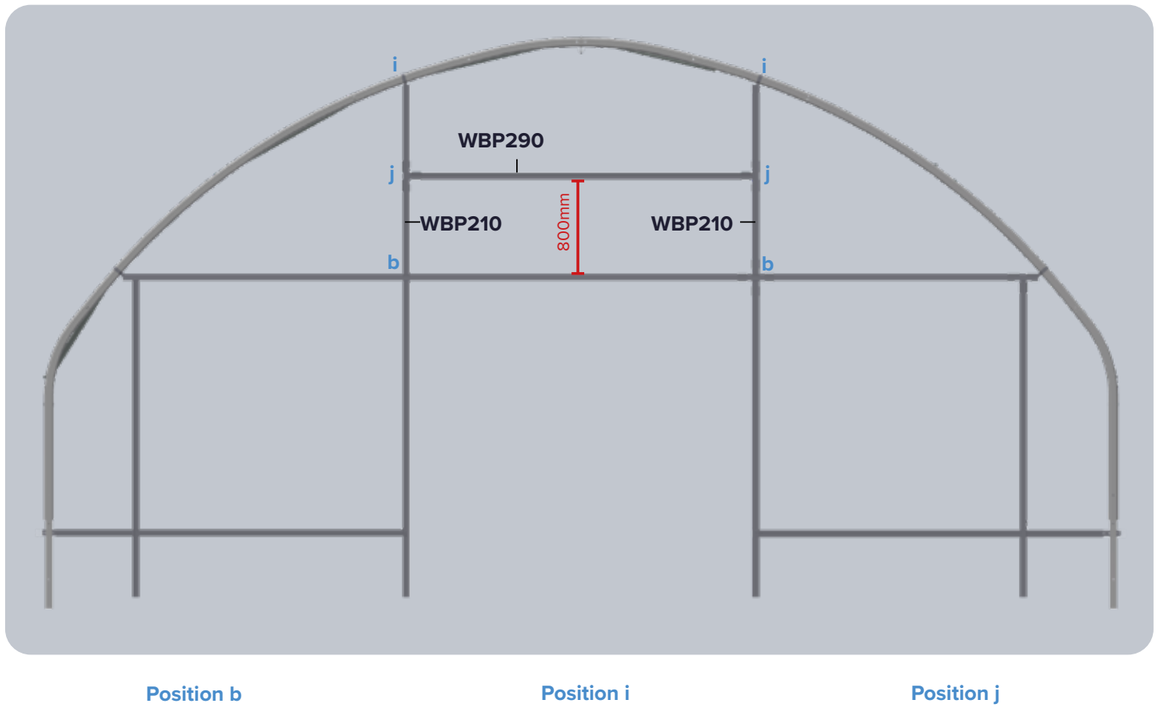


Attach gable end side rail to upright at position **d** using a T bracket. You should have two loose cotters in the upright from an earlier step.

northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

8. Install H frame

Only applies to 8m, & 9m wide tunnels.



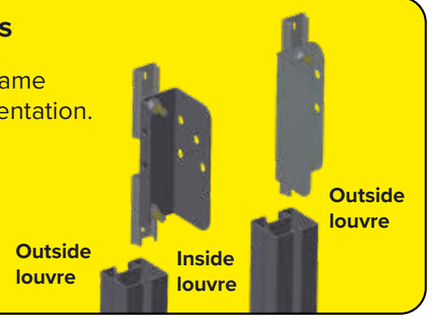
Position b

Position i

Position j

If installing louvres

Install bracket to each H frame upright. Ensure correct orientation.



northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

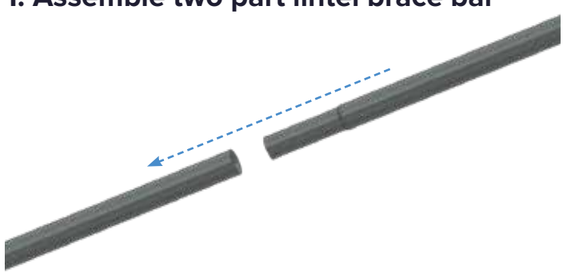
Install Lintel Brace Bar

The lintel brace bar goes from the second hoop (**H2**) to the lintel at position **b**. Depending on your structure spec, position **b** will either be a T or cross bracket.

Lintel Brace Bar Parts

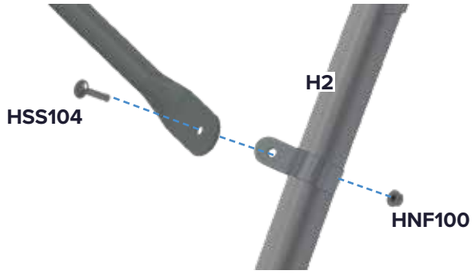
Width	Lintel Brace Bar
5 metre	BBS094 + BBP160
6 metre	BBS098 + BBP160
7 metre	BBS060 + BBP160
8 metre	BBS083 + BBP160
9 metre	BBS081 + BBP183

1. Assemble two part lintel brace bar



Connect two part lintel brace bar, and secure with a tek screw.

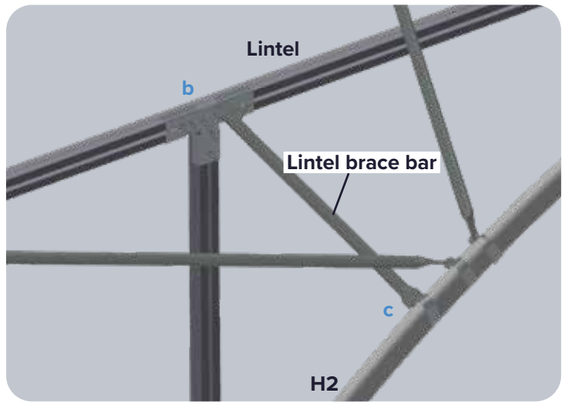
2. Attach to hoop



Attach lintel brace bar to hoop **H2**.

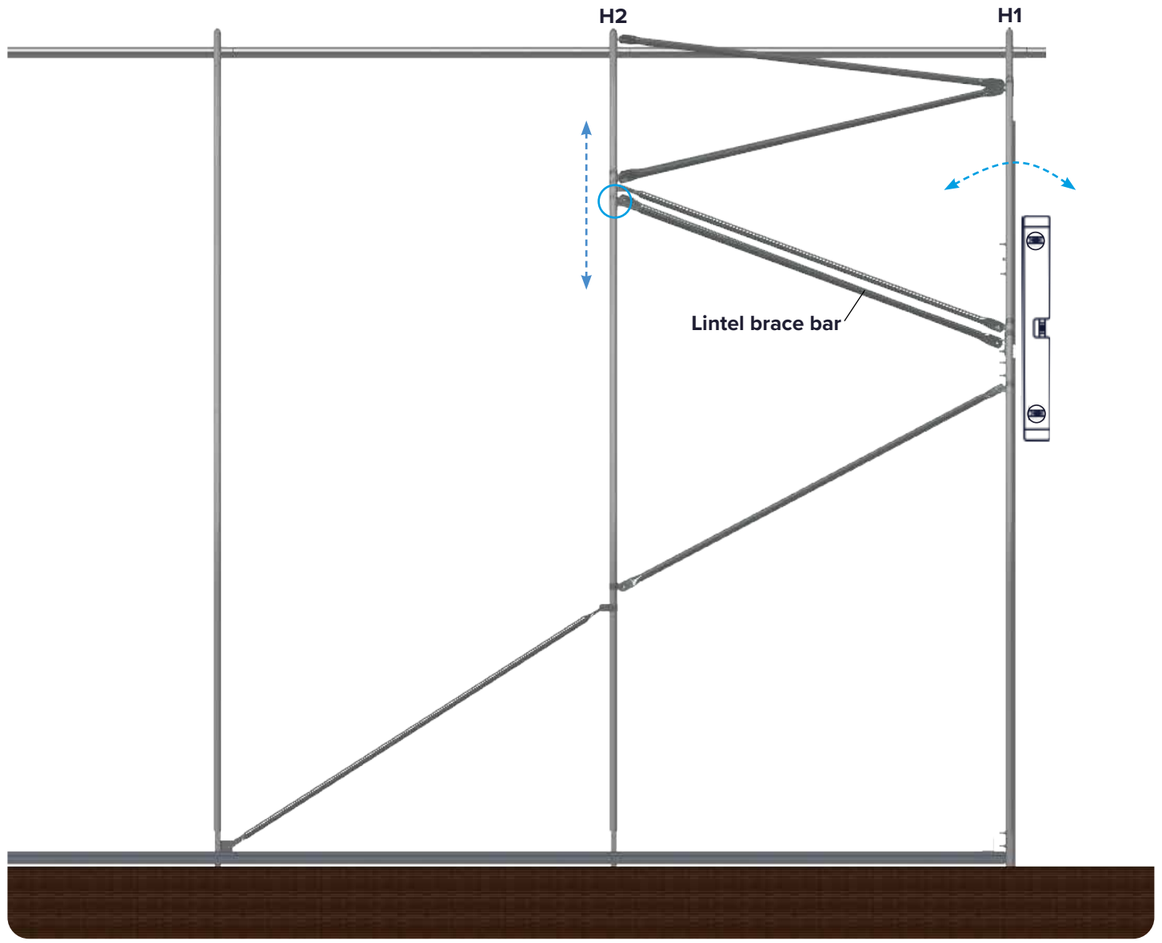
3. Attach to lintel

Attach to bracket (CSS323) at positions **b**.



4. Adjust lintel brace bar position

As you push the brace bar up and down the hoop it will push the end frame in and out.

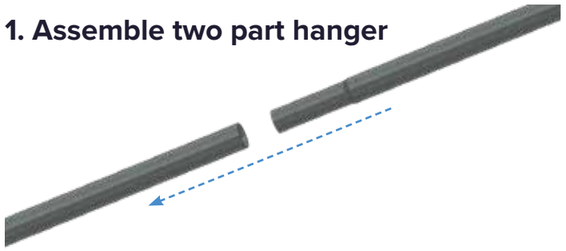


northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

Crop Bar I Hanger Configuration

Width	Crop bar	A	B	C	D
5 metre	CBP217 CBP174	BBP036 BBS050	n/a	n/a	n/a
6 metre	CBP174 CBP291	BBP036 BBS075	n/a	n/a	n/a
7 metre	CBP291 CBP278	BBP036 BBS083	n/a	n/a	n/a
8 metre	CBP466 CBP174	BBP036 BBS098	n/a	n/a	n/a

1. Assemble two part hanger



Connect two part hanger. Secure with a tek screw.

2. Assemble two part crop bar

Connect two part crop bar. Drill and secure with nut and bolt.

3. Attach crop bar to hoop

At positions **a**.

4. Attach hanger to ridge bar

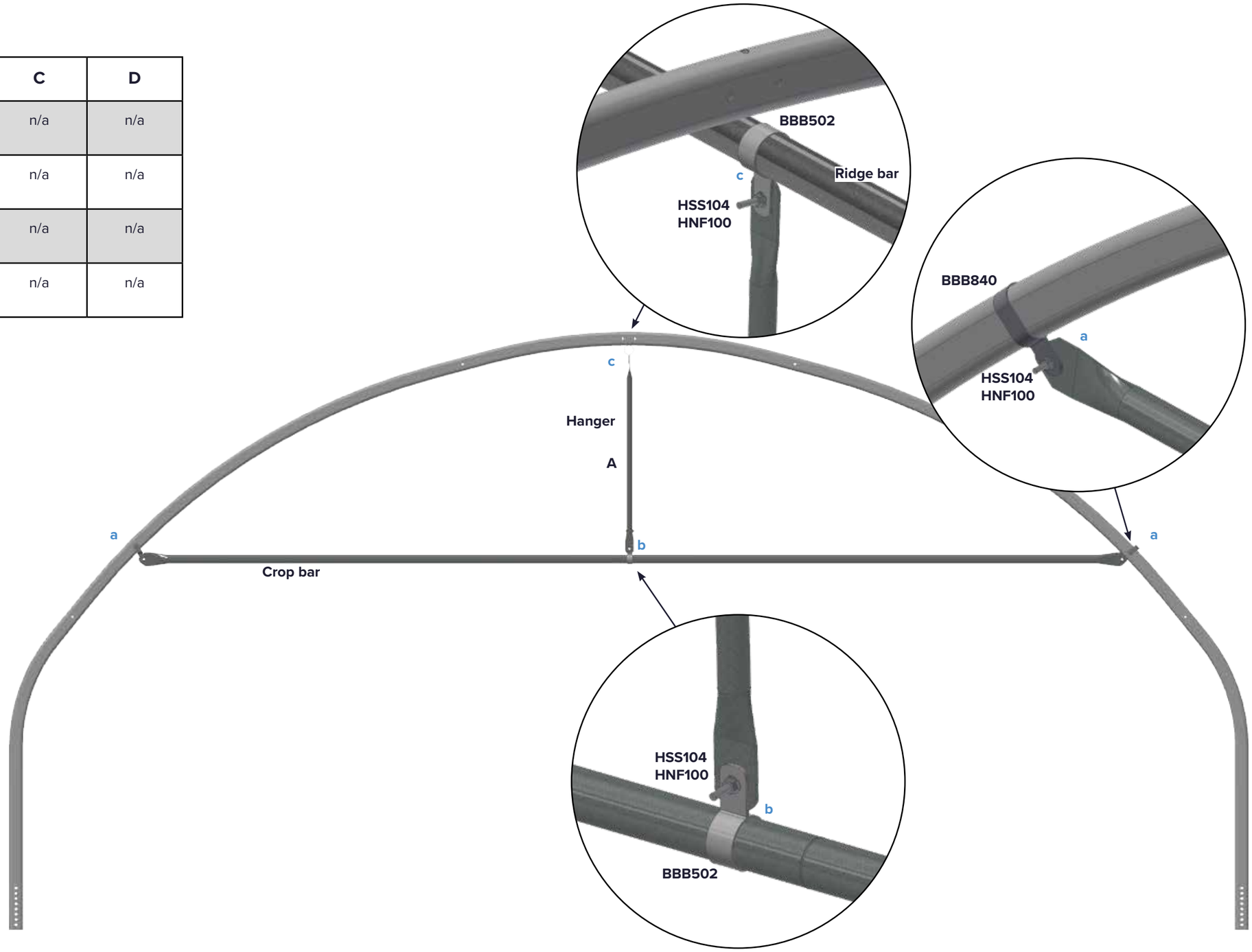
At position **c**.

5. Attach hanger to crop bar

At position **b**.

6. Repeat

Repeat for every inner hoop.

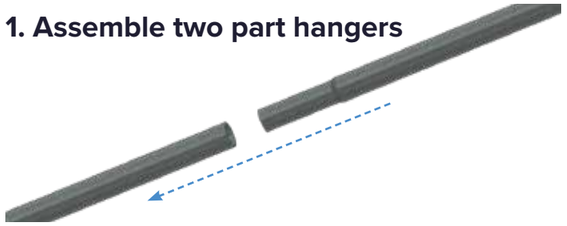


northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

Crop Bar V Hanger Configuration

Width	Crop bar	A	B	C	D
8 metre	CBP466 CBP174	n/a	BBP160 BBS030	n/a	n/a
9 metre	CBP466 CBP285	n/a	BBP160 BBS083	n/a	n/a

1. Assemble two part hangers



Connect two part hanger. Secure with a tek screw.

2. Assemble two part crop bar

Connect two part crop bar. Drill and secure with nut and bolt.

3. Attach crop bar to hoop

At positions **a**.

4. Attach hanger to hoop

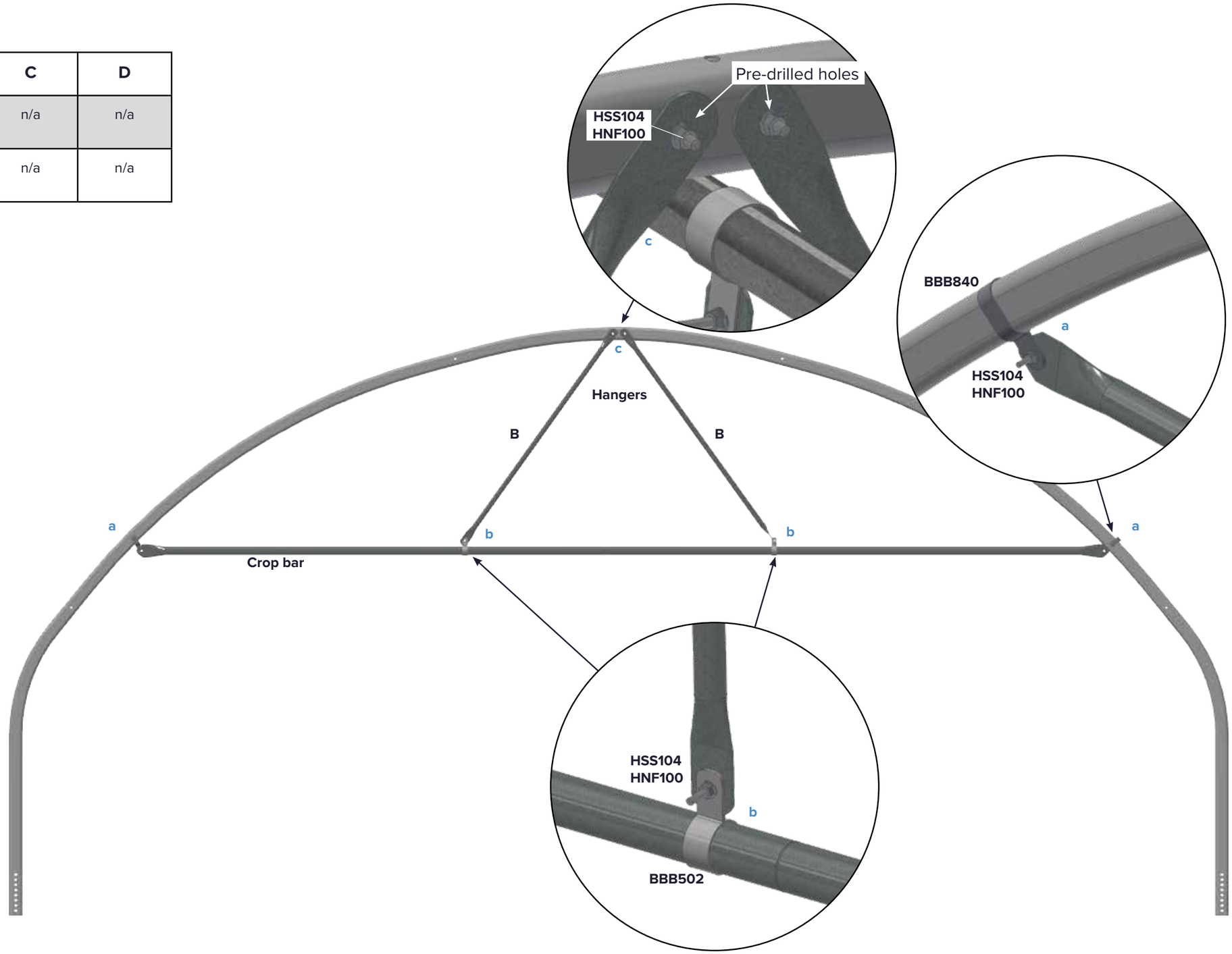
Attach hangers to the hoop (either side of the ridge bar) at position **c** using the the pre-drilled holes.

5. Attach hanger to crop bar

At position **b**.

6. Repeat

Repeat for every hoop.



northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

Crop Bar W Hanger Configuration (Optional Haunches)

Width	Crop bar	A	B	C	D
9 metre	CBP466 CBP285	n/a	BBP160 BBS083	CBH132	CBH160

1. Assemble two part hangers

Connect two part hanger. Secure with a tek screw.

2. Assemble two part crop bar

Connect two part crop bar. Drill and secure with nut and bolt.

3. Attach crop bar to hoop

At positions **a**.

4. Attach hanger to hoop

Attach hangers to the hoop (either side of the ridge bar) at position **c** using the the pre-drilled holes.

5. Attach hanger to crop bar

At position **b**.

6. Attach hanger to hoop

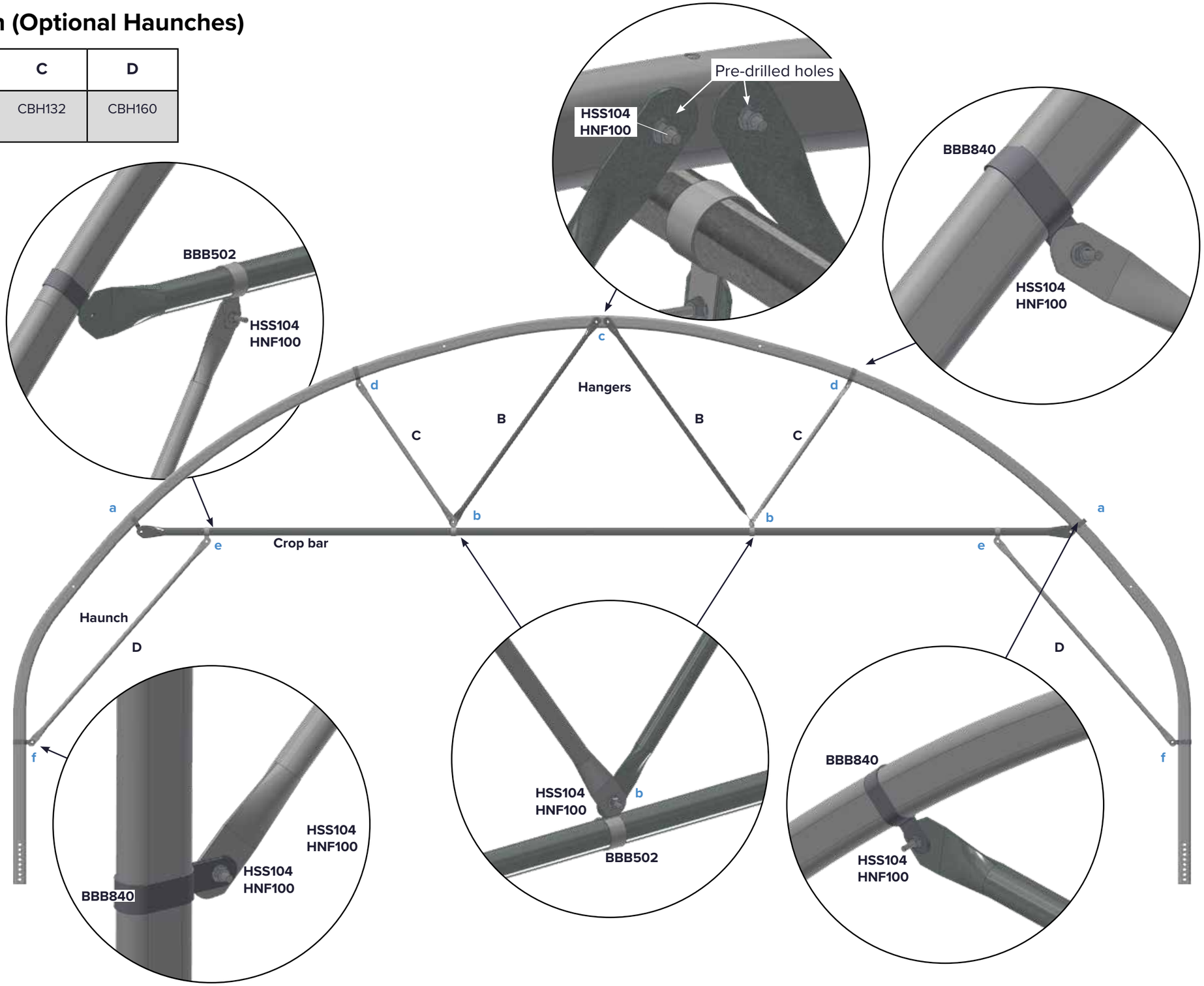
At positions **d**.

7. Attach haunches (if applicable)

At positions **f**.

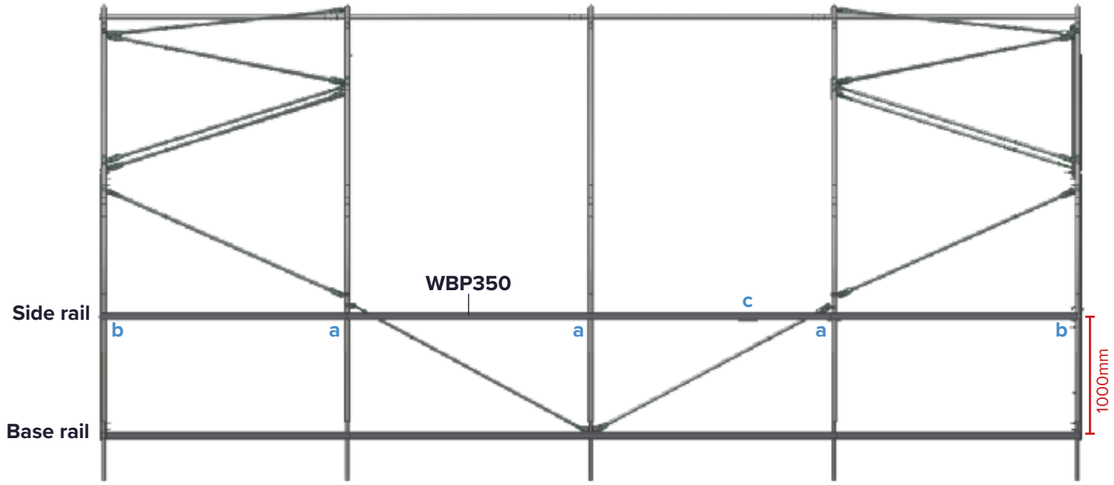
8. Repeat

Repeat for every hoop.



northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

Side Rails



If your tunnel has side rails, proceed with the following steps.

1. Assemble side rail bracket

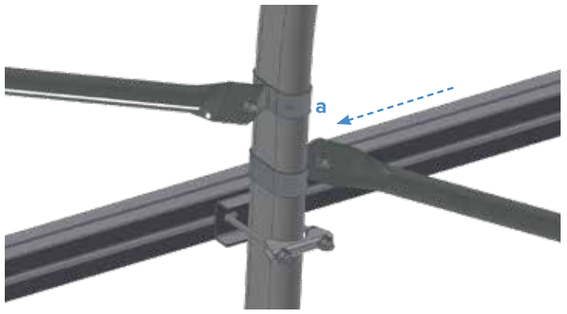
Loosely assemble side rail bracket around hoop at position **a**.

2. Finger tighten

Finger tighten to hold in position, at around 950mm from the base rail.

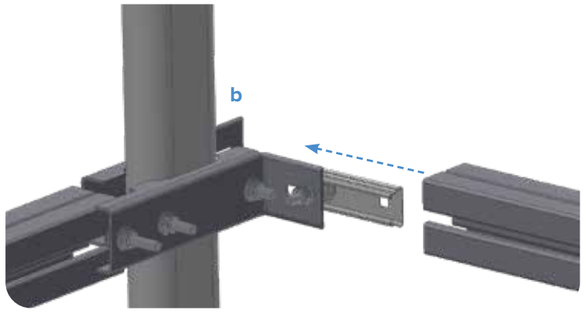
3. Attach side rail to hoops

Starting at one end of the tunnel. Slide side rail profile onto the cotter and bracket at each hoop - pushing the first piece of profile into the corner bracket.

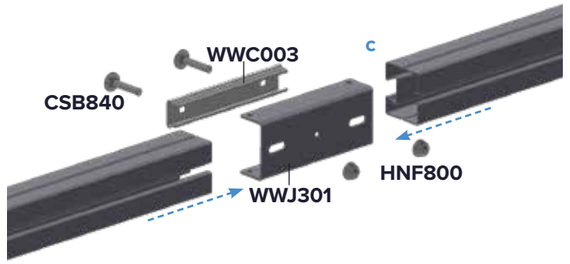


4. Attach to side rail to corner brackets

At each corner (**b**) attach the profile to the corner bracket.



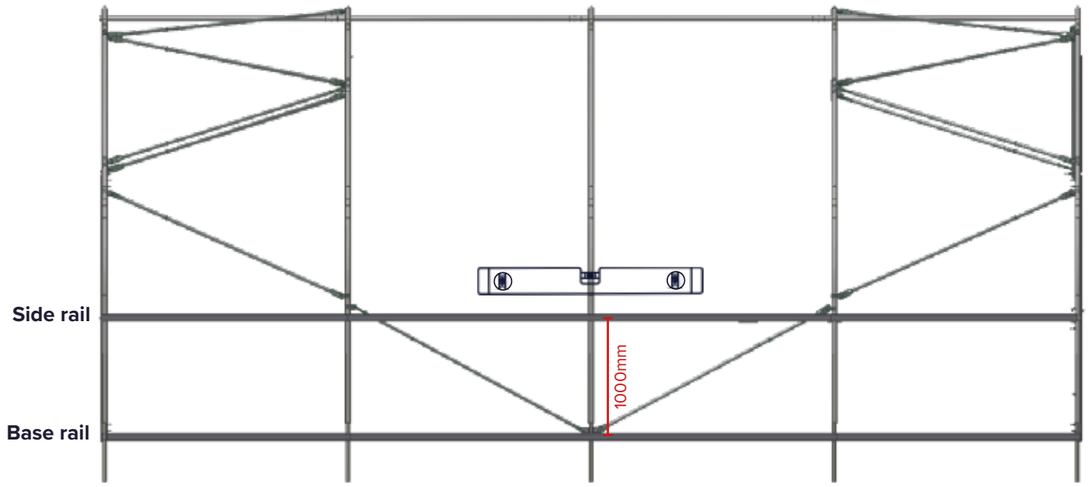
5. Join side rail lengths



Where side rail profile pieces join, connect them with a bracket.

6. Tighten up

Tighten side rail to form a continuous side rail the full length of the tunnel.



7. Check levels and tighten

Finish side rail assembly by checking level. Ensure distance from base rail is 1000mm (from centre to centre of profile). Tighten all nuts and bolts.

Repeat on sides with side vents.

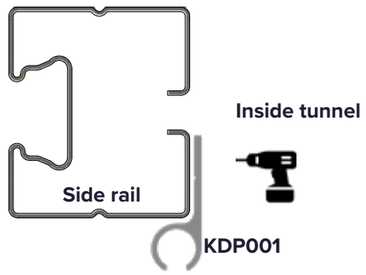
northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

Installing Curtain

If installing curtain, proceed with the following steps.

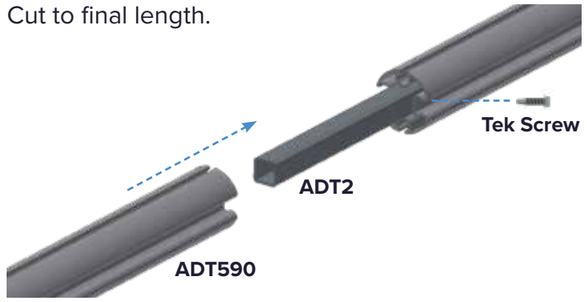
1. Attach keder profile (KDP001)

Fix to inside of side rail using tek screws.

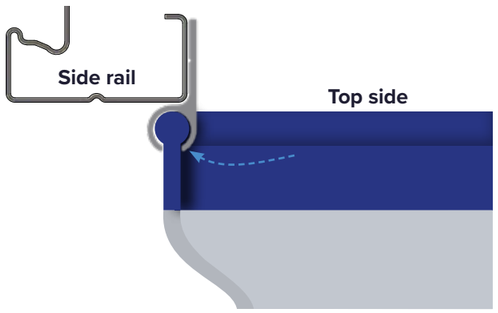


2. Assemble drive tube

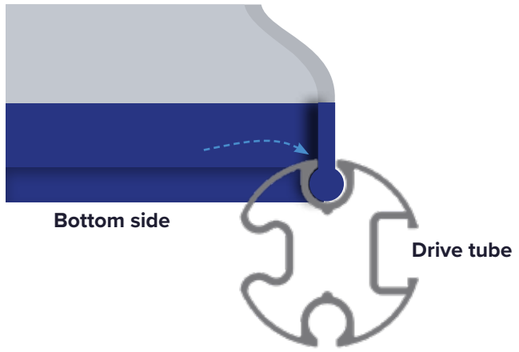
Use drive tube joiners and fix with tek screws. Cut to final length.



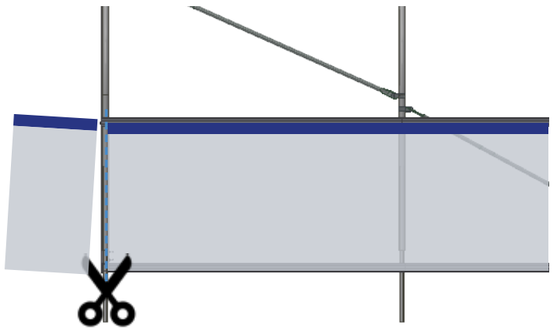
3. Feed PVC curtain into keder profile



4. Feed curtain onto drive tube



5. Cut away excess curtain



Manual Winder

1. Attach bottom bracket (SVB001)

Slide bottom bracket onto winch tube and fasten with a tek screw.

2. Slide on manual winder (MWD001)

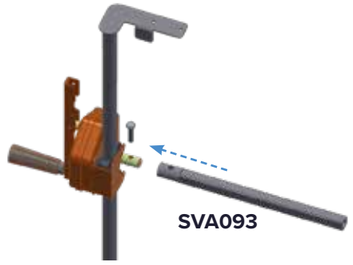
Onto winch tube.

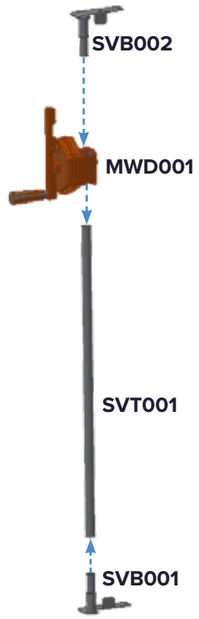
3. Attach top bracket (SVB002)

Onto winch tube.

4. Attach drive tube adapter (SVA093)

Fix in place with a bolt.

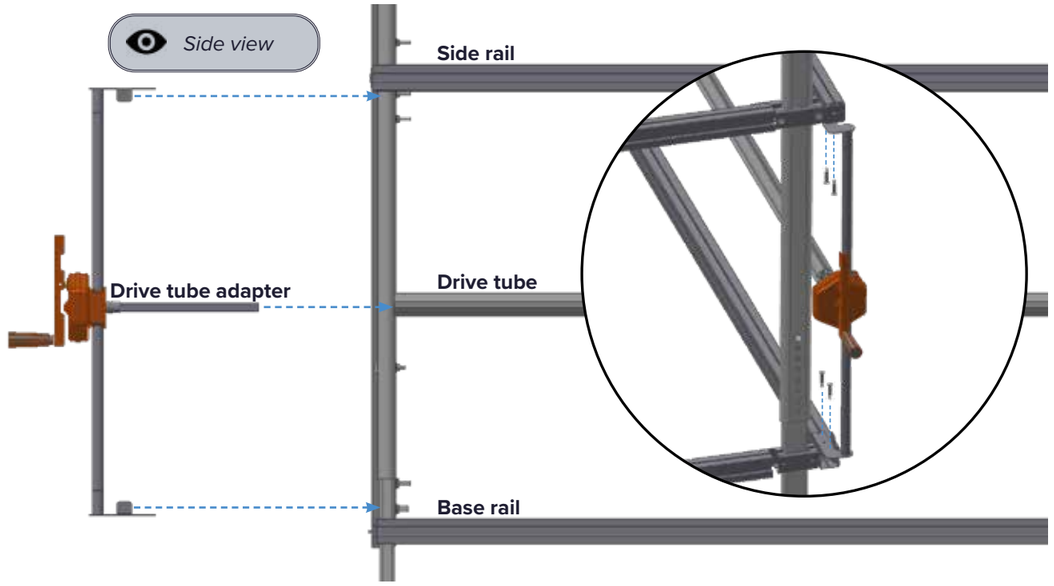




Final Assembly

5. Fit manual winder assembly to drive tube

Attach manual winder assembly to the structure. Slide drive tube adapter into drive tube and fix winder assembly to base rail and side rail with two tek screws.



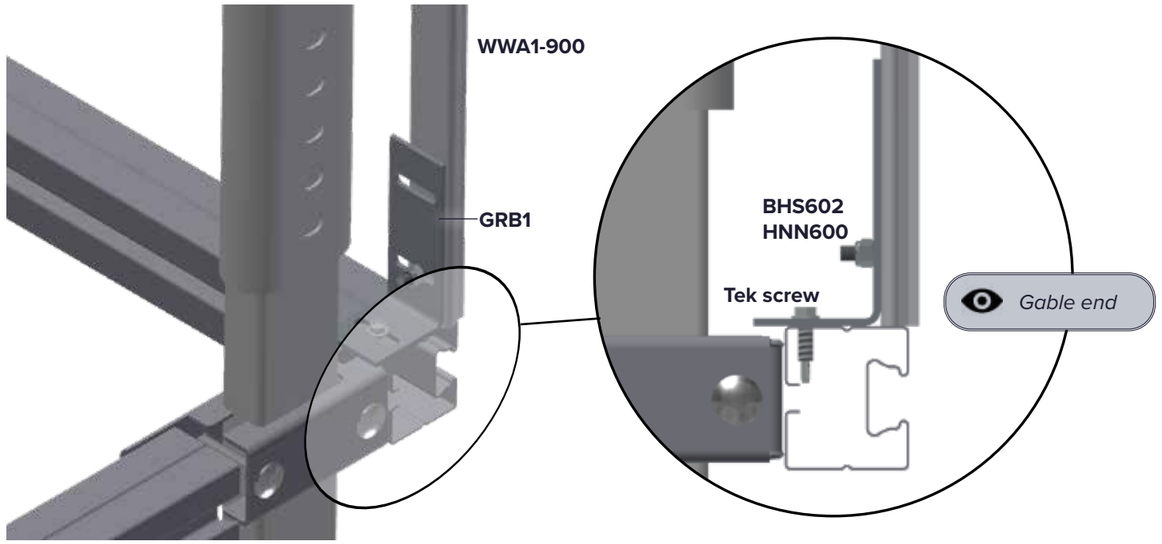
6. Test operation and leave in rolled up position

northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

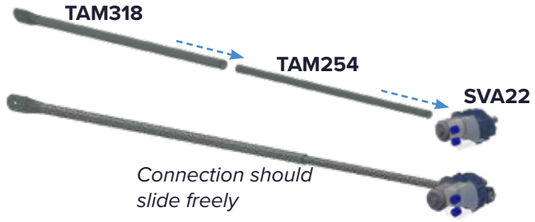
Motorised Winder

1. Attach wiggle wire channel

Fix with tek screw to base rail. Use nut and bolt (nut facing inside tunnel)

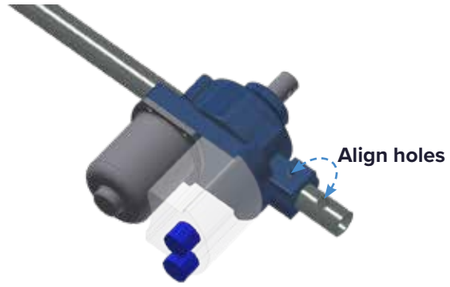


2. Assemble motorised winder



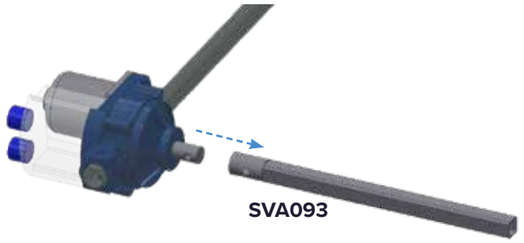
3. Fix motor to arm

Align holes with tube and secure with bolt.



4. Attach drive tube adapter

Fasten with bolt.

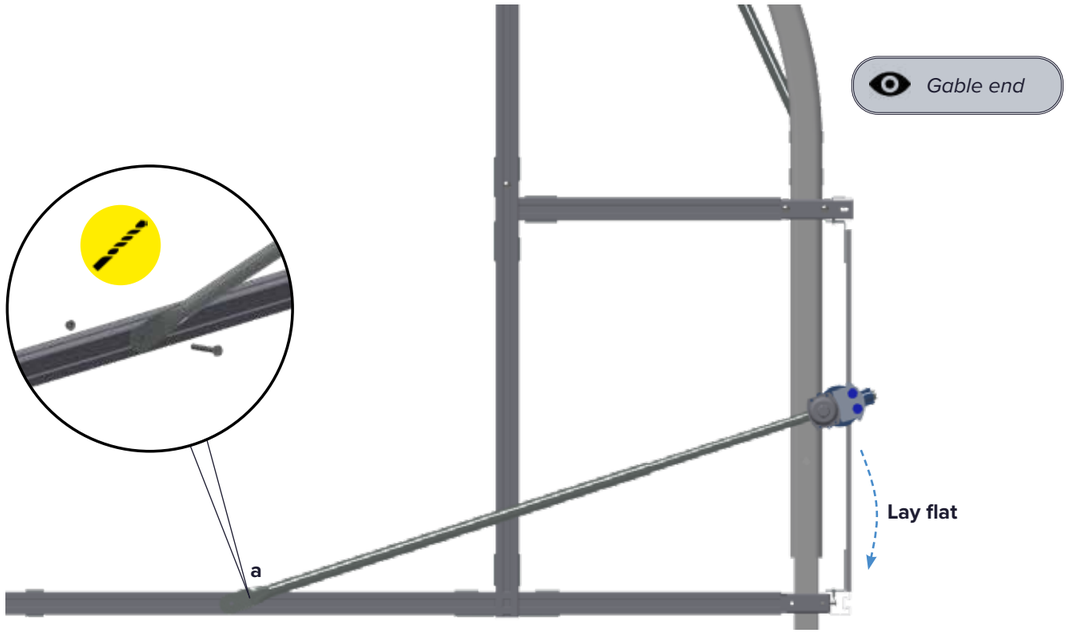


5. Connect motor to drive tube

Slide onto drive tube and fix with tek screw.

7. Attach arm to base rail

Lay motor assembly on the floor with telescopic arm in shortest position. Mark position **a** on base rail and drill hole. Fix telescopic arm with nut and bolt. The middle connection should slide freely.



8. Test operation and leave in rolled up position

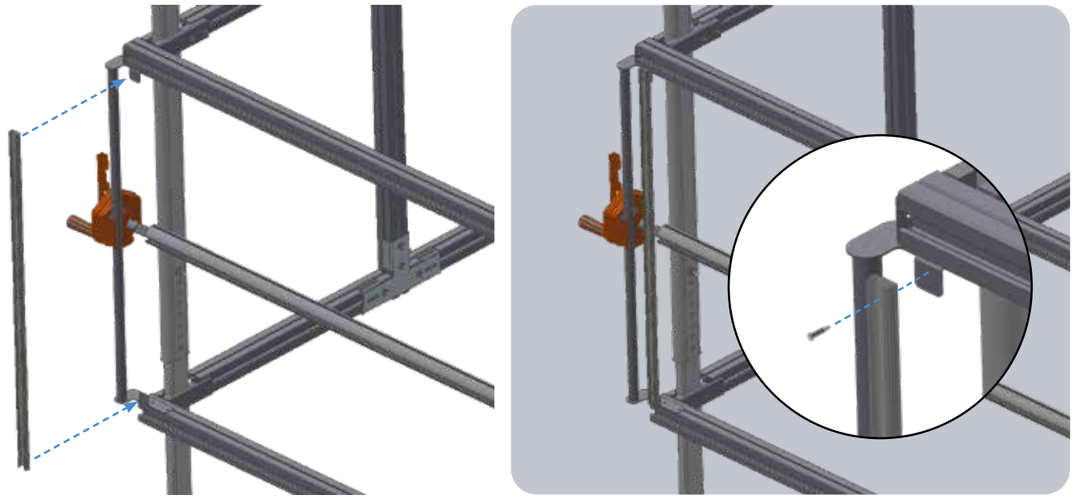
northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

Side Vent Skirt to Net

Before fixing side vent netting, install wiggle wire profile uprights, if not already in place.

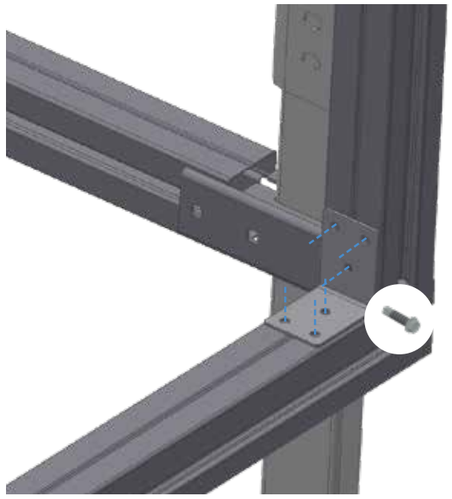
For ends with curtain winder

Attach a length of wiggle wire channel to the winder assembly bracket using tek screws.



For ends without curtain winder

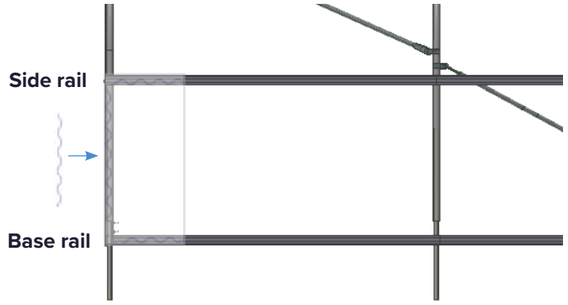
Attach a length of steel profile between the side rail and base rail.
Use L bracket and tek screws to fix to rails.



If you've installed a curtain. Ensure curtain is in rolled up position before fitting net.

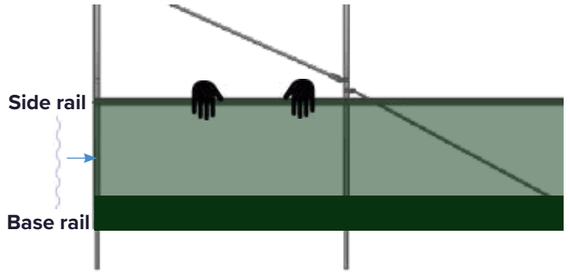
1. Fit draught exclusion panels

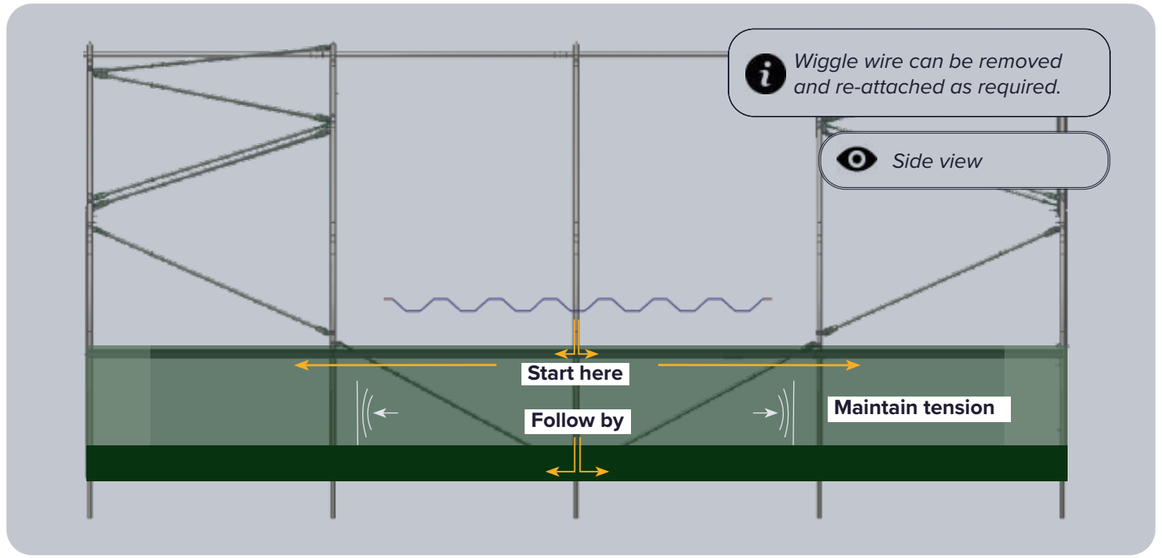
Install one for either end of curtain.



2. Position net and hold in place

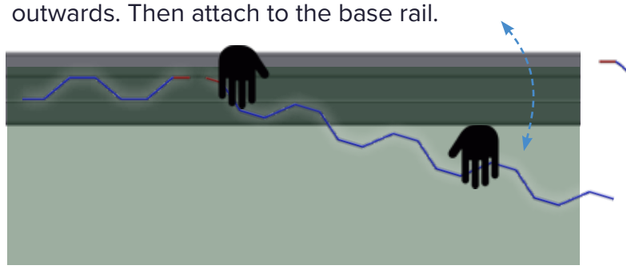
Attach either end with a piece of wiggle wire pulling tight down the length.





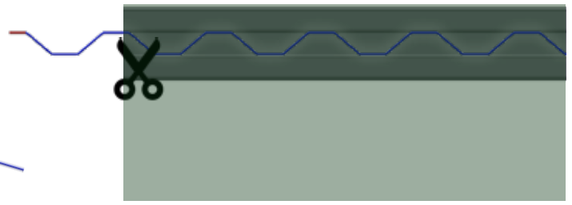
3. Attach net with wiggle wire

Start from the centre of the side rail working outwards. Then attach to the base rail.



4. Cut wiggle wire to length

Using a pair of wire snips.

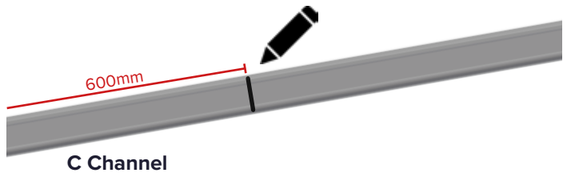


northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

Please refer to instructions INS440, INS388, and INS068

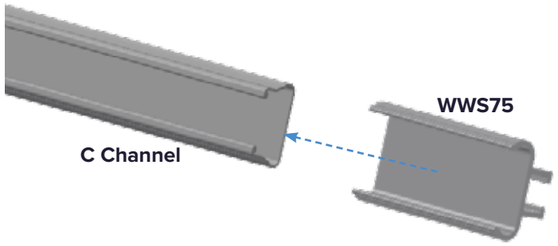
1. Mark C channel every 600mm

Use tape or a marker pen.



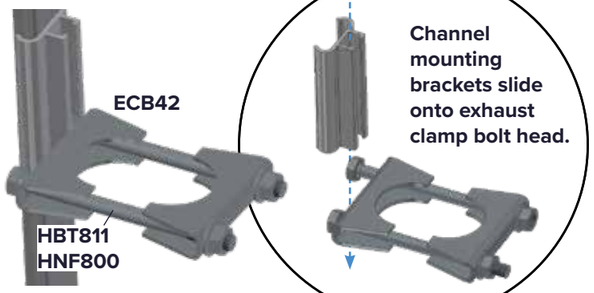
2. Slide channel mounting brackets

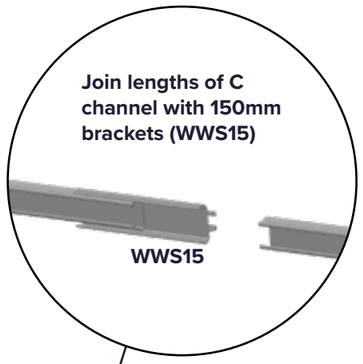
Onto C Channel. One for each mark.

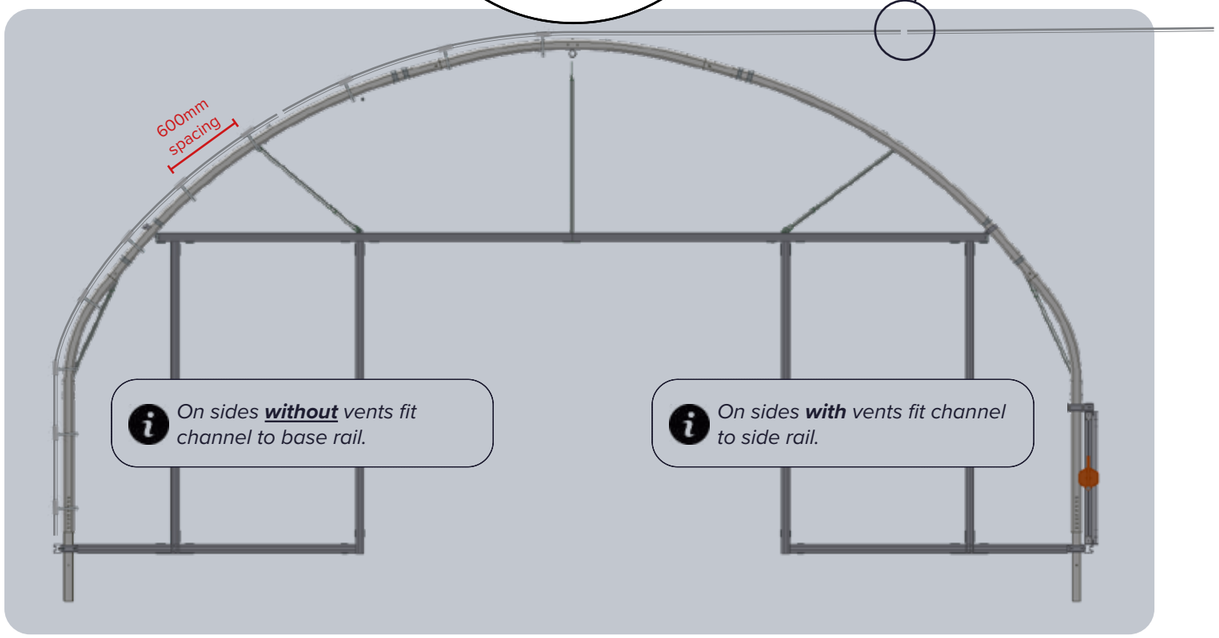


3. Attach C channel to hoop

Slide channel mounting brackets onto exhaust clamps bolt head while clamping to hoop. Bend the C channel to follow the hoop shape.





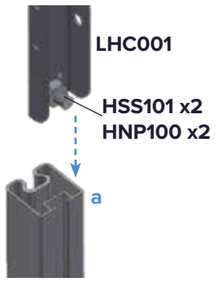


northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

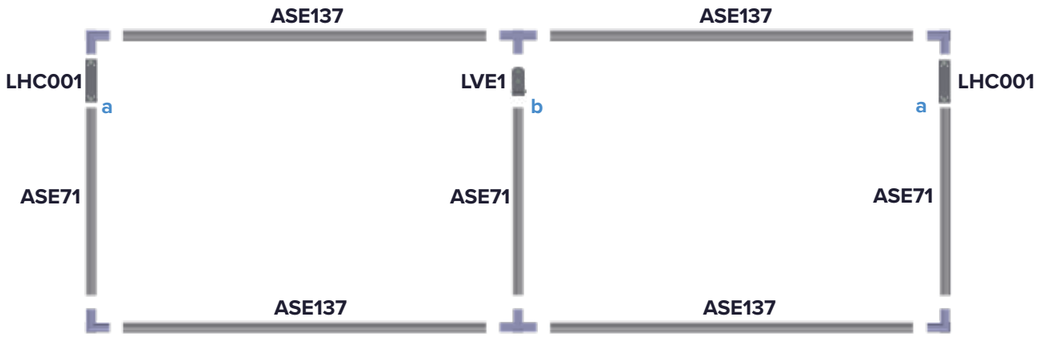
Assemble Louvre

1. Slide brackets onto outer uprights

Ensure correct orientation.

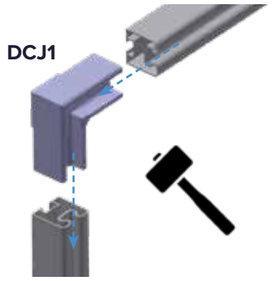


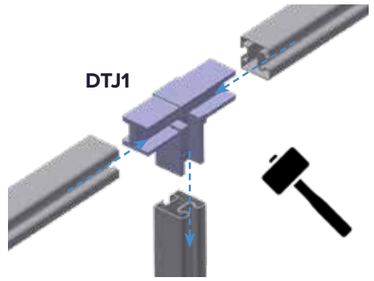
2. Slide bracket onto centre upright



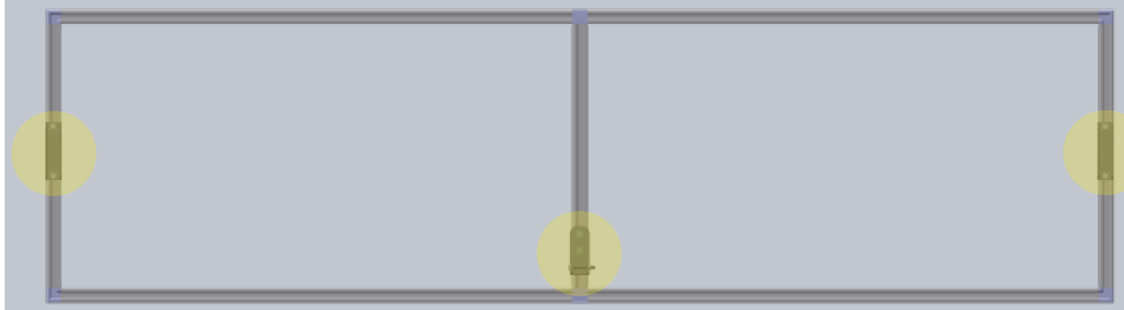
3. Complete frame using corner and T joiners

Use mallet to secure.





Final Assembly

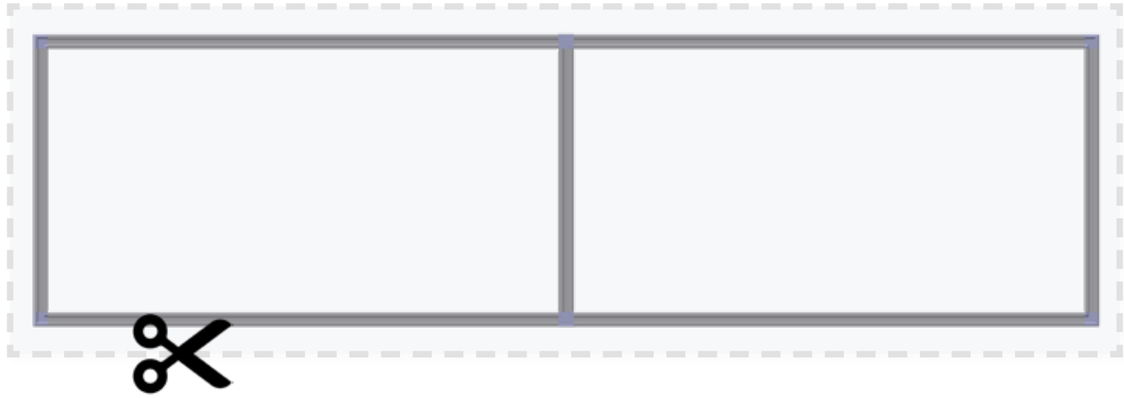


Roughly position brackets (highlighted) and leave finger tightened to allow for adjustment.

Cover Louvre

1. Roughly cut polythene to size

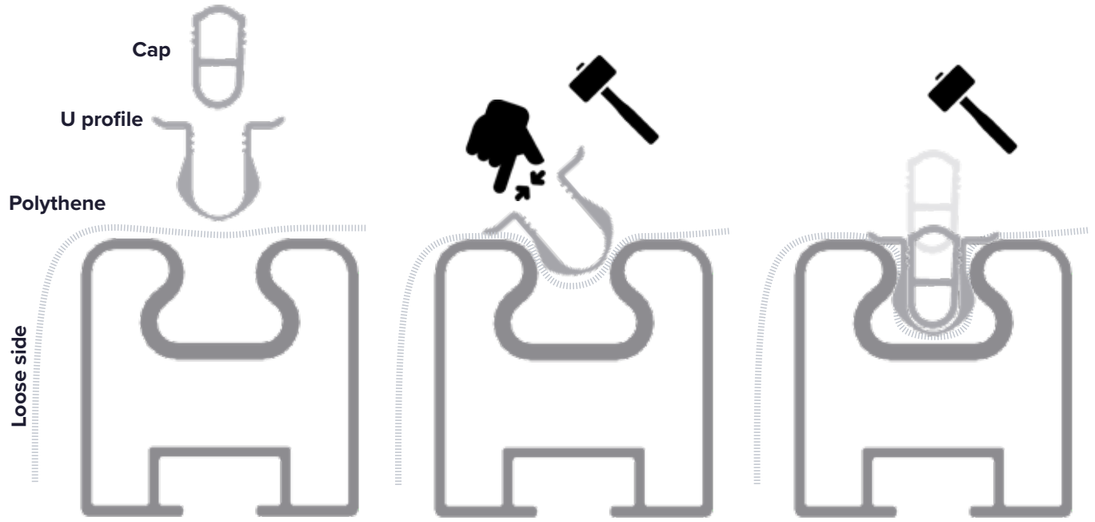
Allow approximately 30cm excess of polythene on all sides to allow for U profile to be pushed into position.



2. Fix polythene to frame

Attach polythene to frame perimeter using ali trap, ensuring polythene is tight. See below for guidance using ali trap.

Do not fix polythene to centre upright.

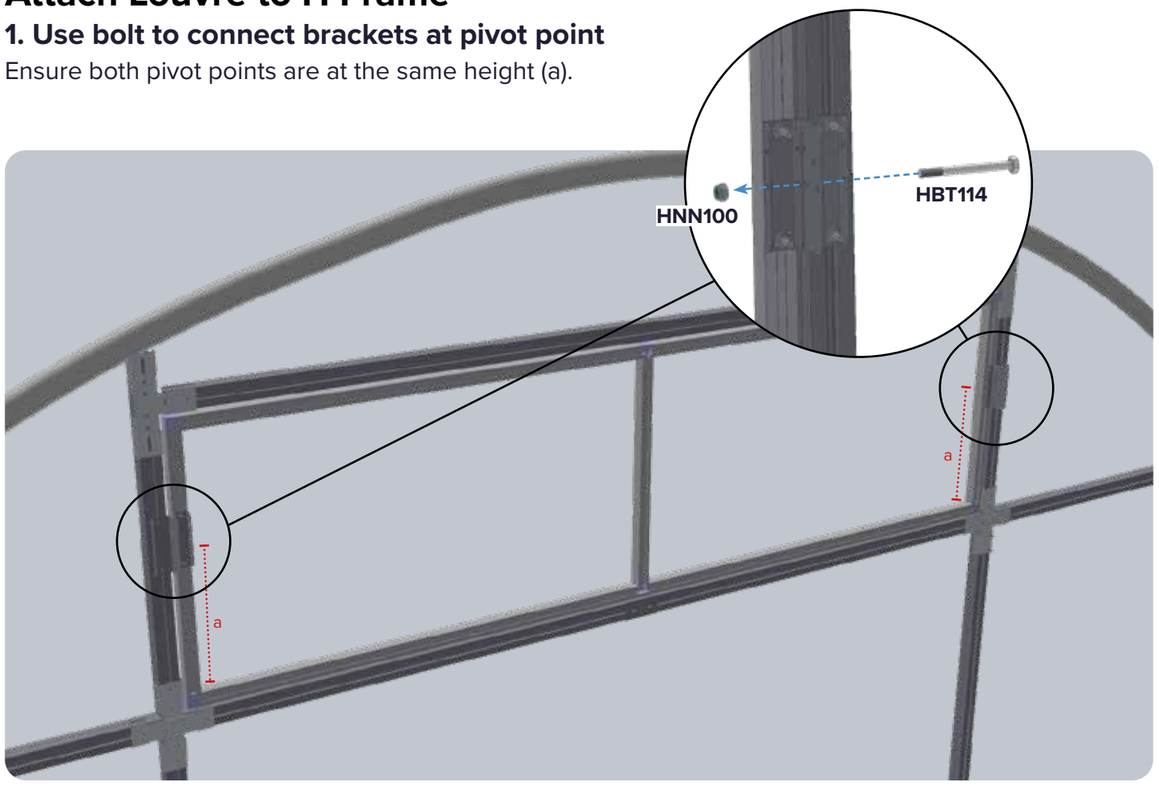


northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

Attach Louvre to H Frame

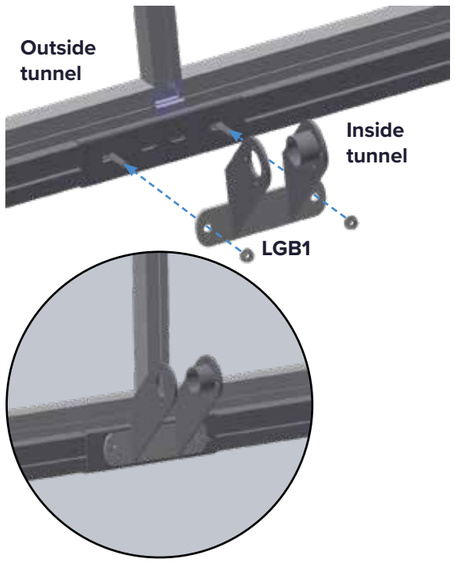
1. Use bolt to connect brackets at pivot point

Ensure both pivot points are at the same height (a).

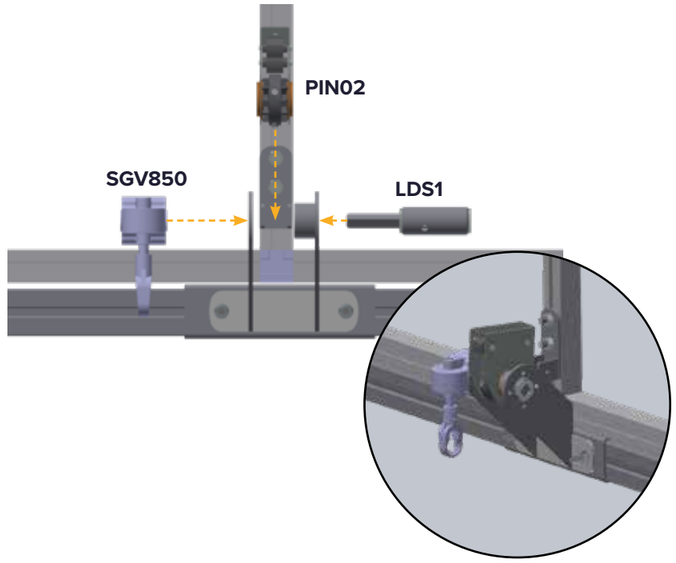


Connect Rack and Pinion

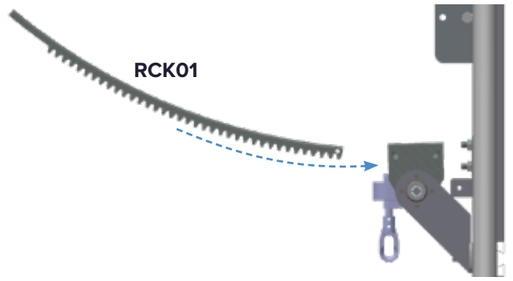
1. Attach bracket to lintel



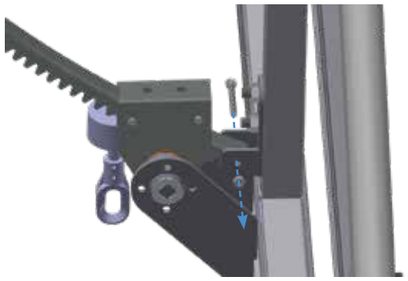
2. Assemble motor



3. Slide rack into motor assembly

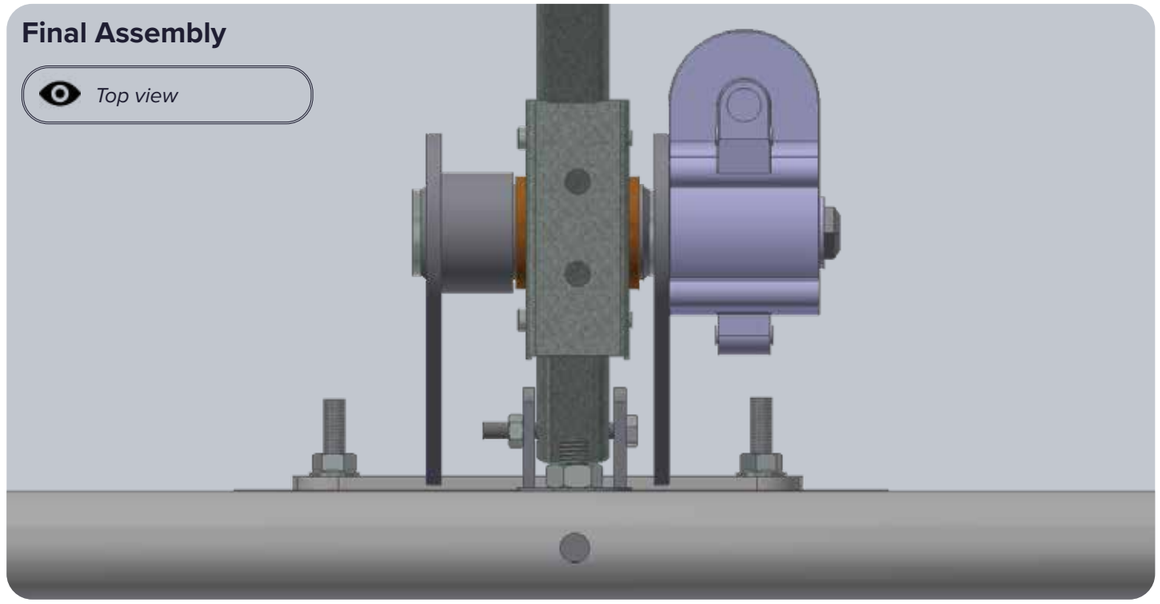


4. Attach rack to louvre bracket



Final Assembly

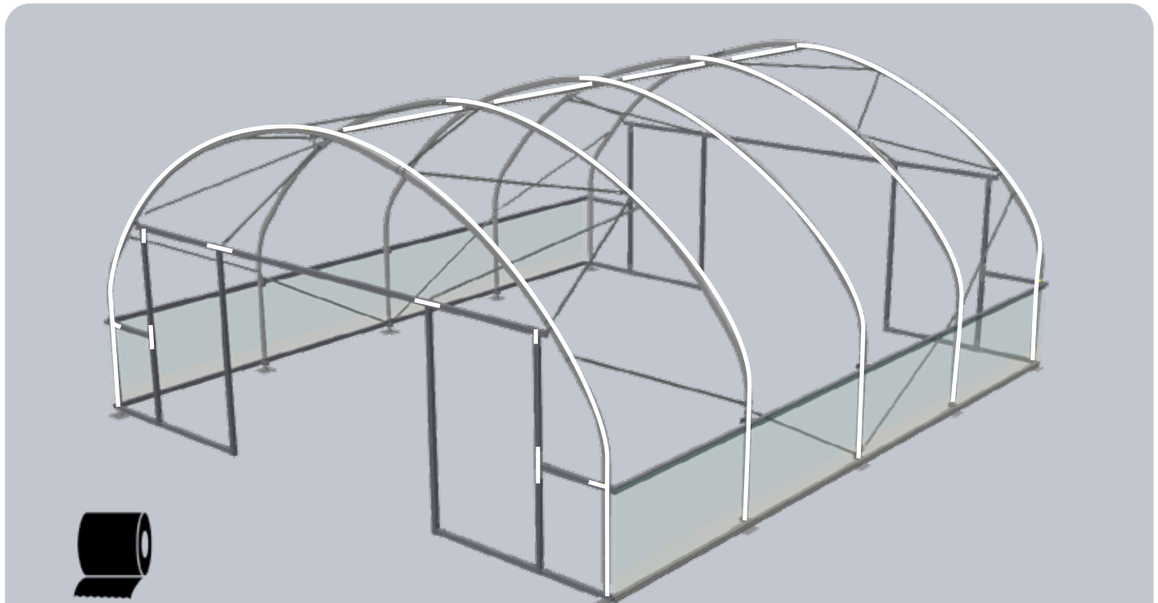
Top view



northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk

Applying Anti Hot Spot tape

Use anti hot spot tape to cover hoops and ridge bars, as well as any sharp edges before covering your tunnel.



Prepare Polythene

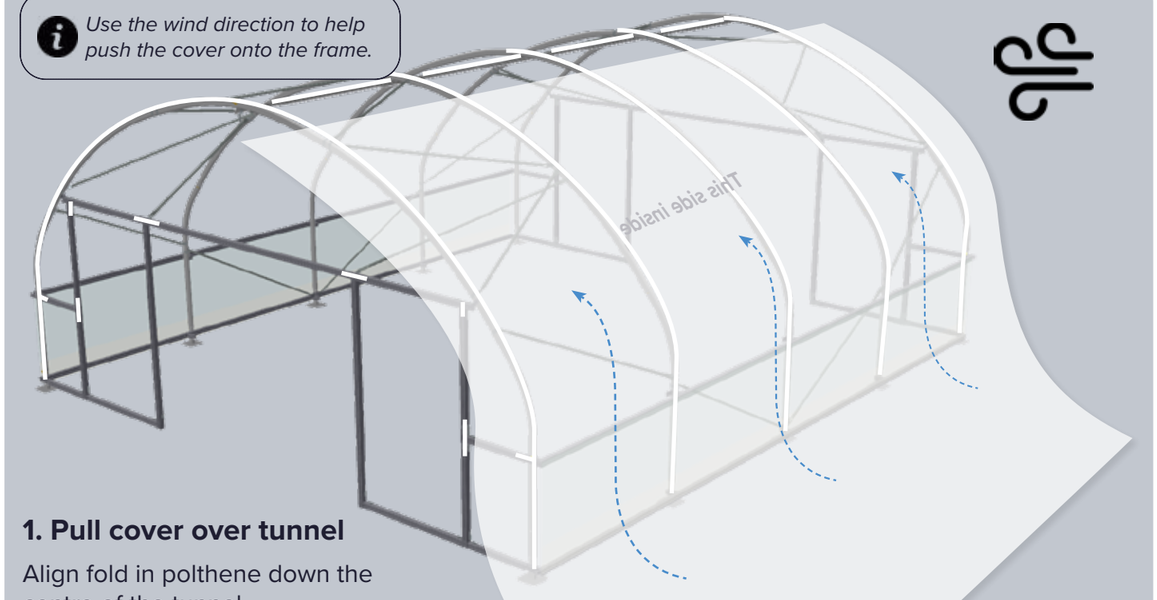
Unroll or unfold your polythene. Polythene is folded widthways. Ensure your polythene is the right way round - you should be able to read the text from the inside.

Text “This side inside”

Covering Polytunnel With Wiggle Wire Over Hoop

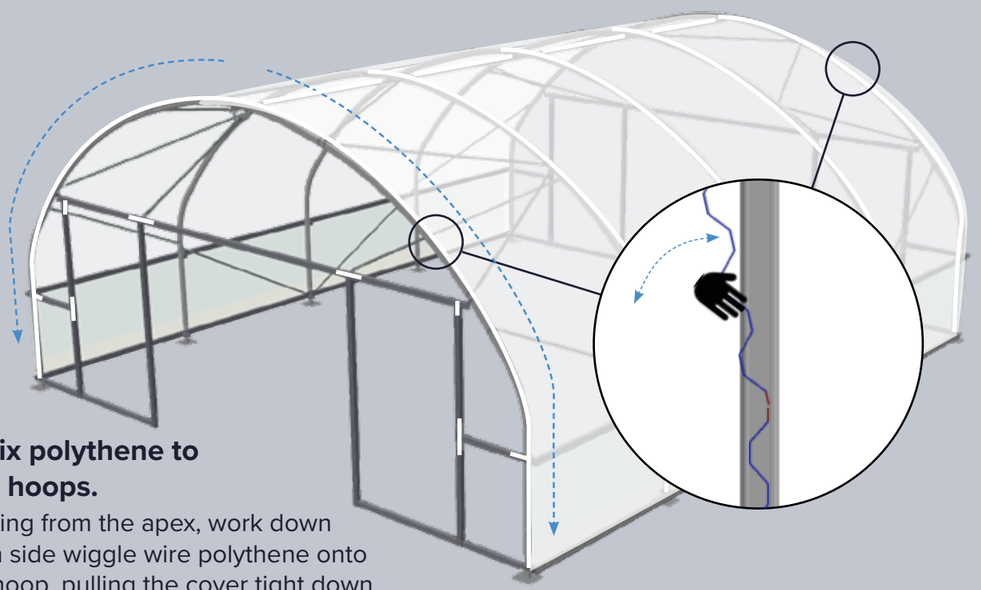
Do not attempt if wind speed exceeds 15mph.

Use the wind direction to help push the cover onto the frame.



1. Pull cover over tunnel

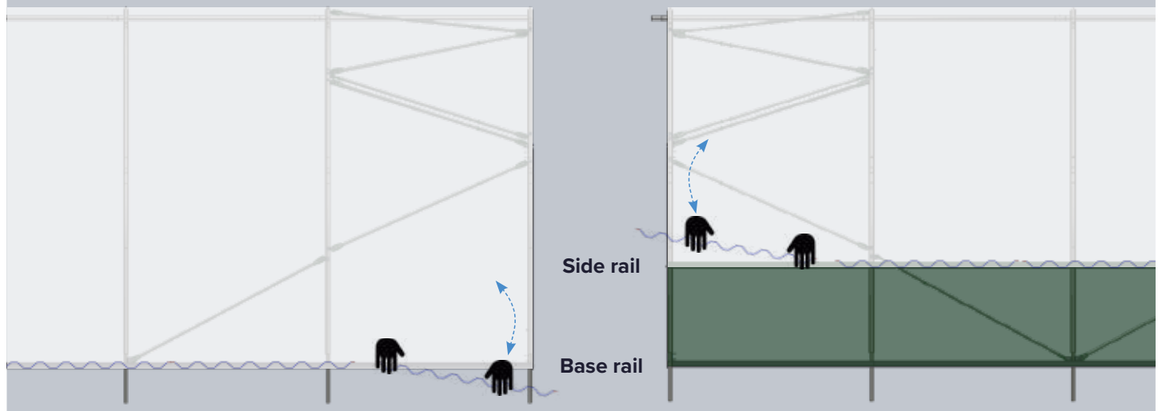
Align fold in polthene down the centre of the tunnel.



2. Fix polythene to end hoops.

Starting from the apex, work down each side wiggle wire polythene onto the hoop, pulling the cover tight down the length as you go.

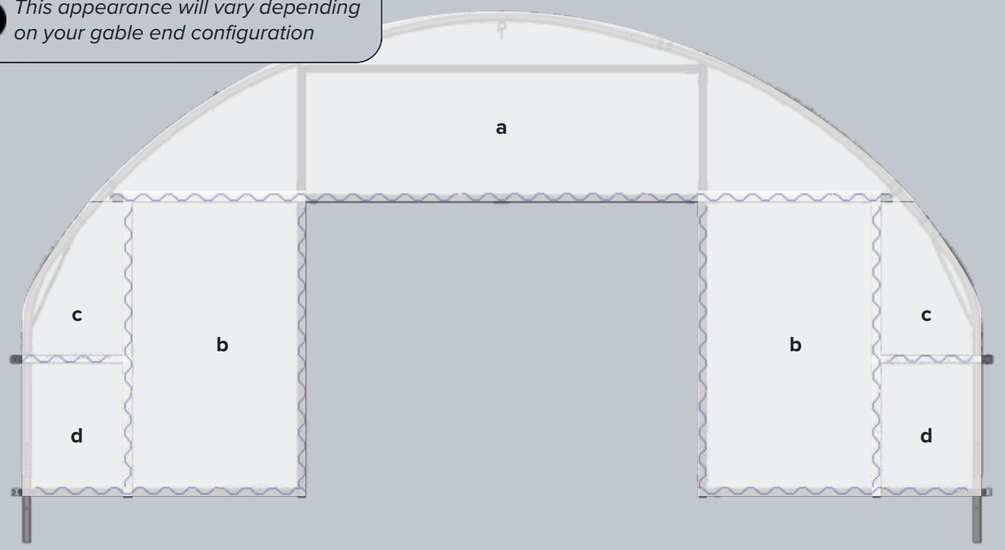
For “Covering Polytunnel Pleating Gable Ends Method” see page 59



3. Fix polythene to polytunnel sides

For sides with vents attach to side rail.
For sides without vents attach to base rail.
Start from the middle and work outwards.

This appearance will vary depending on your gable end configuration

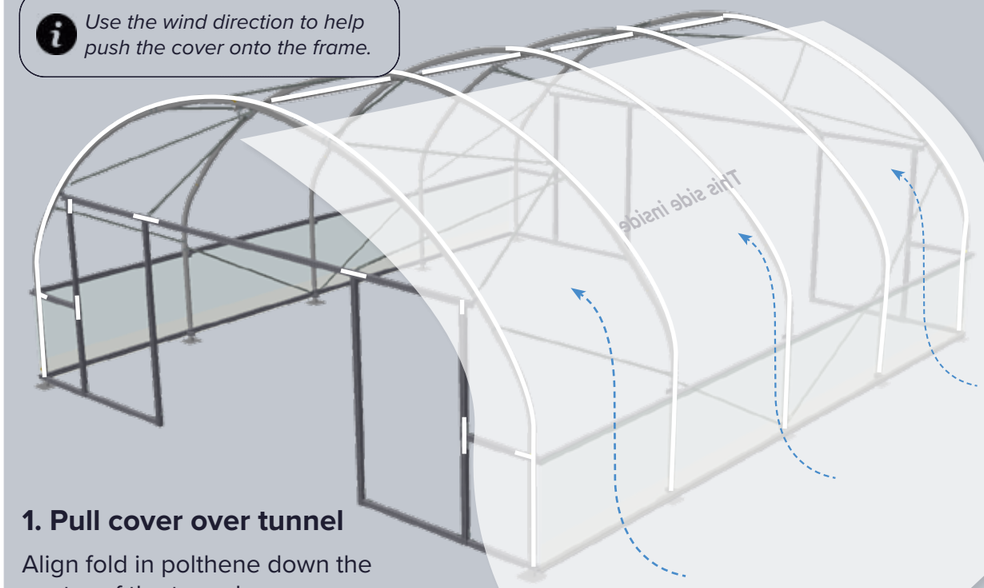


4. Fix Gable end panels

Cut polythene roughly to size to fit each section. Wiggle wire each piece into the gable end frame box profiles. Attach the panels to the wiggle wire channel on the hoop. Wiggle wire can be layered to accomodate multiple sheets.

Covering Polytunnel Pleating Gable Ends Method

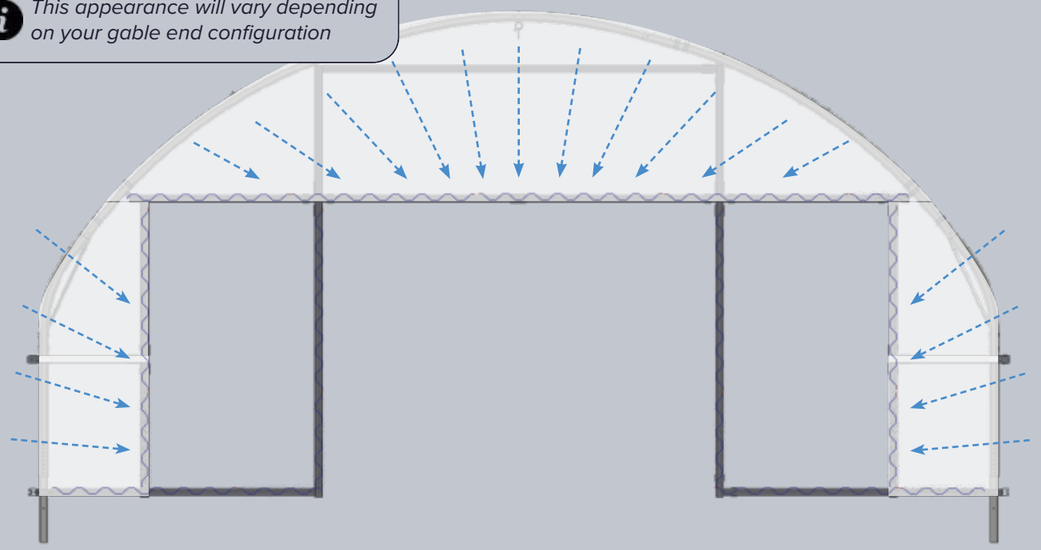
Use the wind direction to help push the cover onto the frame.



1. Pull cover over tunnel

Align fold in polthene down the centre of the tunnel.

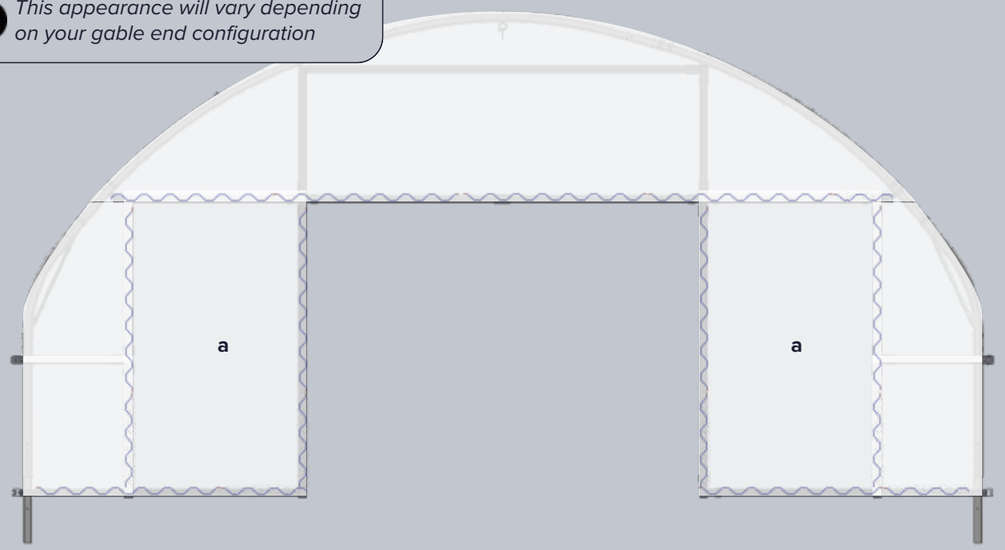
This appearance will vary depending on your gable end configuration



2. Pleat cover into lintel and uprights

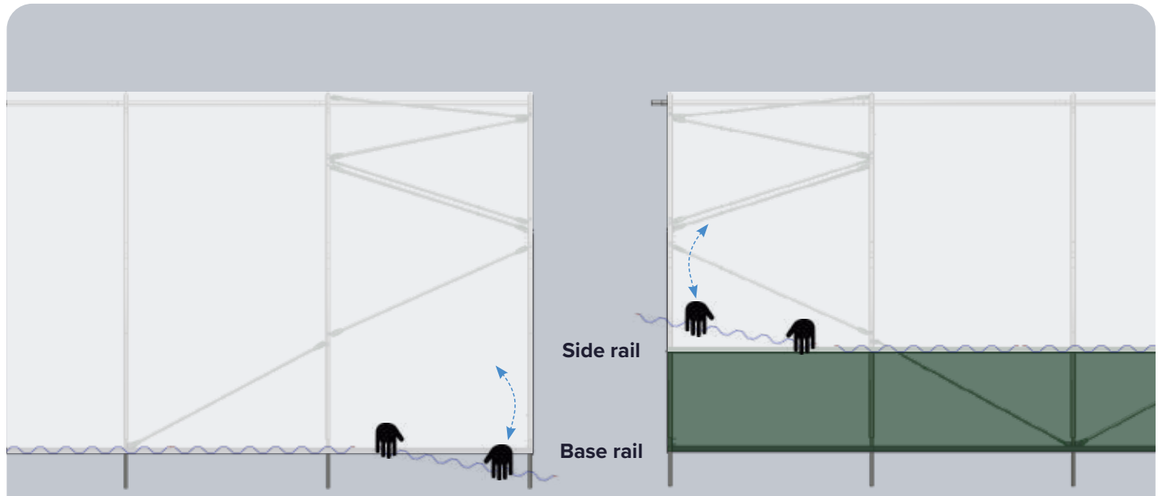
Pull the polythene round the gable end and pleat neatly into the lintel and uprights.

This appearance will vary depending on your gable end configuration



3. Add side panels

Cut in separate pieces to panel in at positions **a** and fix with wiggle wire.



4. Fix polythene to polytunnel sides

For sides with vents attach to side rail.
For sides without vents attach to base rail.
Start from the middle and work outwards.

We're Always Looking To Improve

If you have any feedback on:

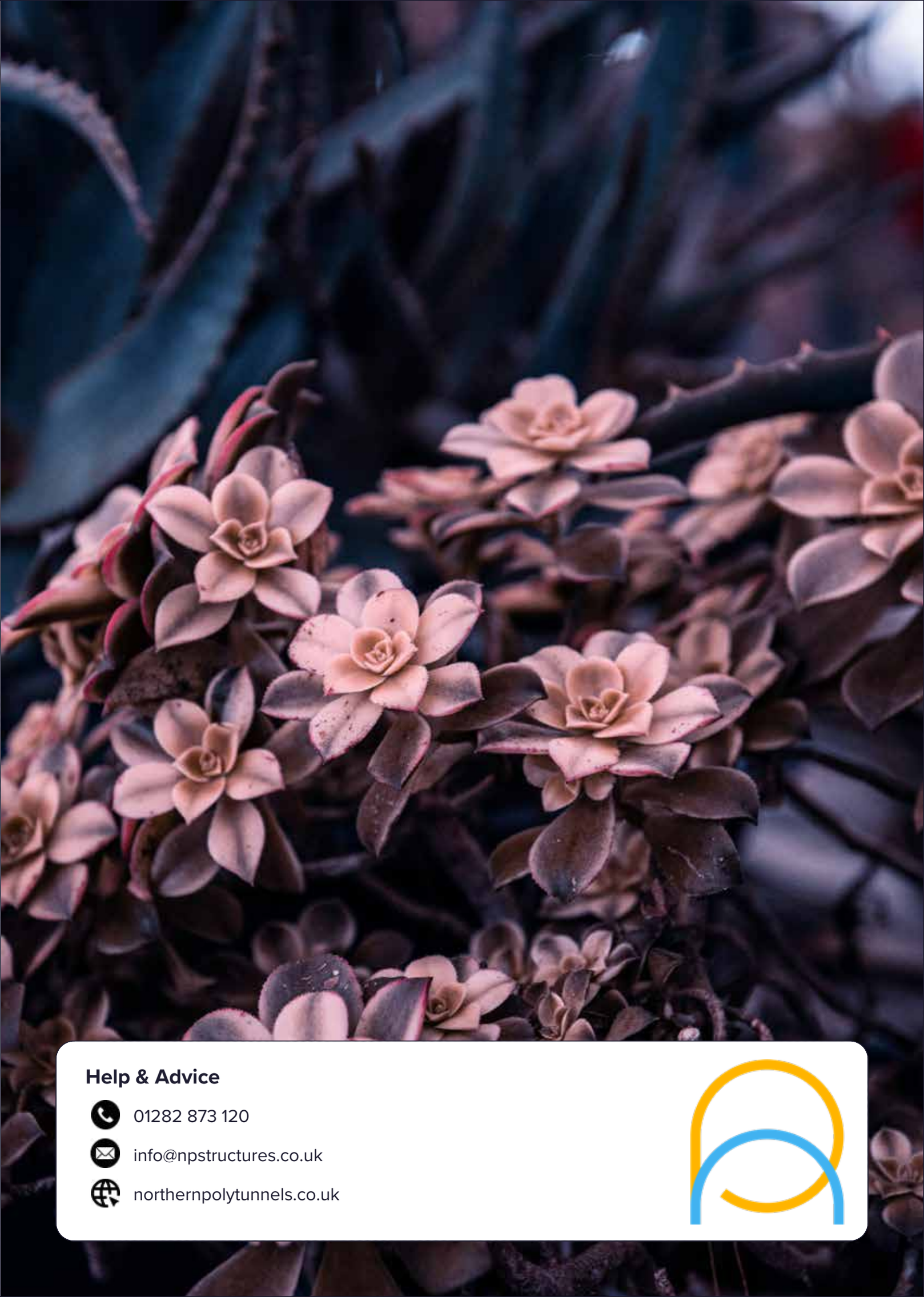
- Delivery
- Design
- Build quality
- Instructions
- Support & customer services

Please email: marketing@npstructures.co.uk

Acknowledgements

Cover photos by Yousef Espanioly – Unsplash.
Icons by Freepik, Creaticca Creative Agency, rukanicon, Lizel Arina, Smashicons, ranksol graphics, Zaenul Yahya, Gregor Cresnar, meaicon, Pixel perfect, juicy_fish, Icongeek26, and andinur – all via Flaticon.

northernpolytunnels.co.uk · 01282 873120 · info@npstructures.co.uk



Help & Advice

01282 873 120

info@npstructures.co.uk

northernpolytunnels.co.uk