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01 Essential Tools:

Item	Tool Description
01	Metal drill, dia. **3.5mm** (for pilot holes for No. 8 x 16 self-tapping screws)
02	Metal drill, dia. **4.6mm** (for pilot holes for No.12 x 13 self-tapping screws) – may not be required for tie-bar bracket pilot holes.
03	Driver Bit, **Phillips Head, PH2** (for driving No.8 x 16 self-tapping screws) **NOT Pozidriv.**
04	Driver Bit, **Phillips Head, PH3** (for driving No.12 x 13 self-tapping screws) **NOT Pozidriv.**
03	51mm Holesaw.
04	10mm Socket (for tightening M6 Nyloc Nuts).
05	Ratchet Driver for 10mm socket (item 04).
06	Spirit Level.
07	Power Drill/Driver, Hammer Drill (ideally cordless).
08	13 Amp Extension cable.
09	Marker Pen.
10	Soft Lead pencil.
11	Robust Step Ladder(s).
12	Digging Equipment for Supporting Post foundation holes.
13	Hacksaw.

02 Tools that will make installation easier:

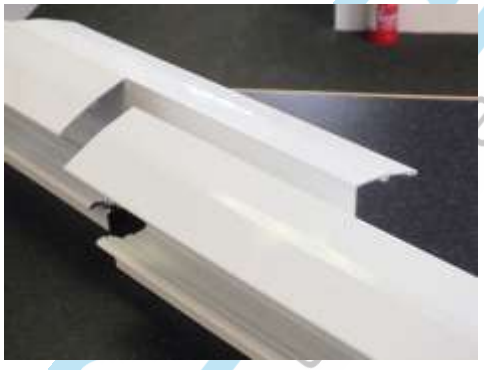
Item	Tool Description
01	Sliding Compound Mitre Saw, 250mm dia.
02	Mitre Saw Bench.
03	Power Drill/Driver, SDS Drill – cordless.
04	Folding Saw Horses/Trestles.
05	Cement Finishing Trowel.
06	Power Jig Saw – cordless.
07	White Rubber Mallet.
08	Variety of metal drills.
09	Variety of Masonry drills.
10	Metal File.
11	Length of hosepipe (to get concrete foundation pads level (with each other)

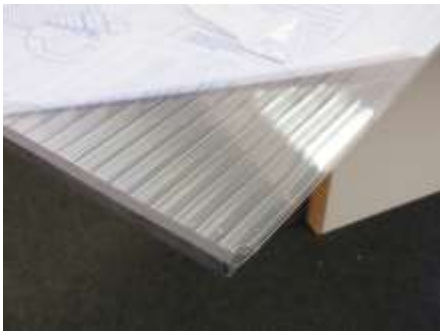
03 Items to be supplied by Installer

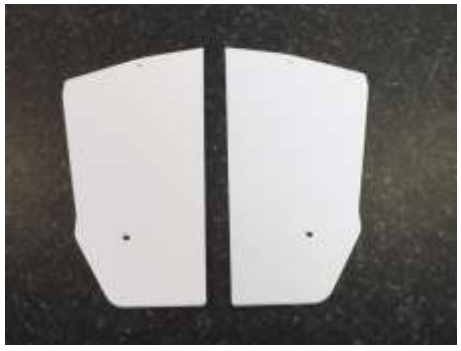
Item	Item Description
01	Fixings for securing Supporting Post Feet.
02	Drill bits for fixings in 02
03	Sand and cement/ post mix and water for supporting post foundations (if this is the foundation regime for the supporting posts).

04 Canopy Main Components

Canopy Component	
Supporting Post/Tie-Bar Bracket Assembly. (Eaves/Gutter side)	
Central Supporting Post/Tie-Bar Bracket Assembly. (supporting the Ridge Assembly)	
Post Foot/Bracket joining Eaves/Gutter and Supporting Post	

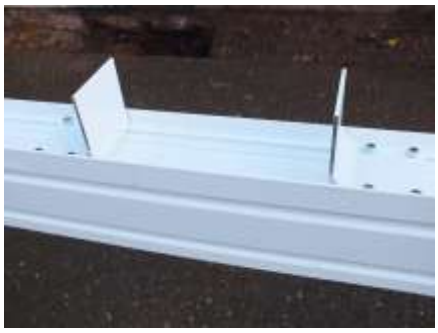
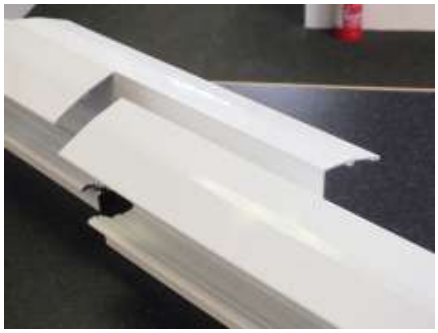
Canopy Component	
Ridge (Wall-Plate Assembly)	
Eaves/ Gutter	
Edge Glazing Bar	

Canopy Component	
Main Glazing Bar	
Sheet Closure (for Roof Panel)	
Roof Panel with protective film on both upper and lower surfaces	 

Canopy Component	
End Cap for Edge Glazing Bar	
End Cap for Main Glazing Bar	
End Plate for Eaves/Gutter	
End Plates for Ridge Assembly	

Canopy Component	
Tie-Bar	
Rainwater Adaptor	

05 Overview of Installation Process (Main Stages):

Stage	Stage Description
01	Set out and dig holes for foundations for supporting posts (for 750 cube of concrete). Foundation hole positions are shown at the end of this guide. Make hole(s) for egress of rainwater in Supporting Post(s) where this is required. <u>See Setting Out Hole Positions at end of this document.</u>  **Getting the foundation pads level at this stage saves a lot of time levelling the canopy frame later.**
02	Assemble (2) Eaves/Gutter assemblies (joining (2) Eaves/Gutters together using joining plate).  Assemble Supporting post brackets to Eaves/Gutter assembly and store adjacent working area. 
03	Assemble Ridge assembly (joining (2) Ridge Assemblies together with joining plates and nuts and bolts into pre-drilled holes) and store adjacent working area. 

04	Assemble (1) Eaves side Frame 1. Assemble (1) Eaves/Gutter assembly to (3) Eaves Supporting Post assemblies to form (1) side frame assembly. This can best be achieved working at ground level. 2. Set this frame adjacent one of the outside row of foundation holes.
05	Install Canopy Frame 1. Install Eaves Side Frame in (1) of the outside rows of foundation holes. Ensure levels are OK and vertical alignment is correct in both directions. Side frame may require propping until next step accomplished. 2. Assemble (1) of the central Supporting Post assemblies and Tie-Bar to the Eaves/Gutter frame. Secure this first central Supporting Post assembly to the foundation pad. 3. Checking levels, fix all Supporting posts of Eaves frame to foundation pads. 4. Work along the canopy frame to complete the row of Central supporting posts assemblies and Tie-Bars. 5. Install the Ridge onto the Central Supporting Post assemblies. 6. Finally, complete the other Eaves Supporting Post/Tie-Bar row and add the Eaves/Gutter Assembly. As you proceed through steps 2. – 6. check that posts are vertical in both directions and that Eaves/Gutter assemblies, Tie-Bars and Ridge assembly are level at each stage. Fix all remaining supporting post feet to foundation pads. Final fix- using self-tapping screws and nuts/bolts canopy frame. ***See Setting Out Foundation Hole Positions data sheet at the end of this Instruction Guide.***
06	Fit Edge Glazing Bars One Edge Glazing Bar is required at each end of both roof pitches. Ensure that you can remove one of the self-tapping screws at the eaves end of the edge glazing bar. This allows the final glazing panel to be fitted when following the process for fitting the glazing panels

07	Fit Roof Panels, edge and main Glazing Bar assemblies (Edge and Main Glazing Bars with Main Glazing Bar End caps fitted). Fit the Edge Glazing bar and secure in position. Working from one end of the canopy fit one roof panel followed by one Main Glazing Bar assembly alternatively until the last edge glazing bar has been installed in position. Do not secure the main glazing bars or last edge glazing bar at this stage. 
08	Position Main Glazing Bars – Check that the spacing between the Main Glazing Bars is correct. Mark these positions. 
09	Fitting Sheet Closures to Roof Panels. This will require that the roof panels are lifted to enable Main Glazing Bar End Caps to be loosened so that the Sheet Closures can be fitted behind the Glazing Bar End Caps. 

10	Secure the Main Glazing Bars in position at the Wall-Plate and the Eaves/Gutter. Check Spacing between Glazing Bars is correct against positions marked earlier.	
11	Secure the Supporting Post feet in position by the means that you have chosen. The recommendation is that the supporting posts feet are buried in minimum 750mm cube of concrete.	

06 Installation Process; Main Stages in Detail:

Process Step	Description
	Stage 01: Set Out positions and prepare foundations for Supporting Posts
01	Mark position of each Supporting Post Assembly. Use the Setting Out Foundation Hole Position datasheet (located at the end of this Installation Guide. The Foundation Hole positions are specified for our standard range of canopies. If your canopy is not one of our standard sizes the hole positions will be separately specified.
02	Dig holes for each Supporting Post. These holes should be a minimum of 750mm square x 750mm deep. The Free-Standing Canopy requires that the tie-bar brackets are level horizontally in both projection and width directions. ***Make sure that you have decided how you will ensure that the tie-bar brackets are all level in both directions so that you make your foundation holes the correct depth.*** 

03	Pour concrete mix into each hole to a depth of 100mm to provide footing for Supporting Post Feet. Concrete mix should ideally be: 1 part cement : 3.5 parts sand : 2.5 parts course aggregate. If using combined aggregate the mix should be: 1 part cement : 5 parts combined aggregate. Do not overwater as the mix needs to start 'skinning over' as soon as possible. *This can be accelerated by pouring a thin layer of cement onto the concrete footing once it has been levelled.* Level the footing using a Cement Finishing Trowel.  **It is highly recommended that the concrete pads are made to be level with each other. This will save a huge amount of time later when levelling the canopy frame components. Therefore. It is worth getting this right**. One of the simplest ways of doing this is that once you have a pad whose depth you are happy with and is one that you will work from this is to use a hose pipe and fill it with water. Hold the hosepipe at a known height above the 'datum' pad. Insert a stake in your next foundation hole and mark off the water level point on the stake. You can then pour your concrete for this pad until the pad height is the same dimension from the stake mark as the known height above the 'datum' pad. There are other ways of getting your concrete pads level with each other. This is probably the simplest using readily available kit.

	Stage 02: Assemble (2) Eaves/Gutter Assemblies.
04	Assembling the Eaves/Gutter assembly: The aim of this process step is to align the (2) Eaves/Gutters with each other. This work is most easily undertaken with the components resting on trestles. Insert Joining Plate into joining plate slots on one of the wall-plates. The Joining Plate is 350mm in length and is designed to be a tight fit. To make fitting the joining plate easier the edges of the Joining Plate can be filed using a Metal File. The joining plate can also be cut down in length using a Hack Saw, again to make fitting eaiser. Use a White Rubber Mallet to tap in the Joining Plate into the joining plate slots to half its length.  Inserting the Joining Plate can be quite difficult if there has been a build-up of the Powder-coat in the Joining Plate slots. To start the Joining Plate it may be necessary the clear some of the Powder-Coat using a thin blade screwdriver.

05	Assembling the Eaves/Gutter assembly: Fit End-Plate to each end of Eaves/Gutter. Again, undertake this activity whilst the Eaves/Gutter is located on the Trestles. Apply silicone sealant to the end profile of the Eaves/Gutter. If the end of the Eaves/Gutter is uneven because of the powder-coating it is sensible to file the end profile square and flat with a Metal File to provide a good surface for the joint.  Secure End-Plate to the end of the Eaves/Gutter by screwing in the (4) Self-Tapping Screws into the (4) screw ports in the Eaves/Gutter.  The (4) holes in the Eaves/Gutter End Plate align with the (4) screw ports in the Eaves/Gutter. When all (4) screws have been secured apply a bead of silicone sealant to the End Plate – Eaves/Gutter join on the inside of the Eaves/Gutter. You may want to 'smooth down' this bead of silicone sealant to ensure that the silicone seals all along the End-Plate/Eaves/gutter join.

06	Assembling the Eaves/Gutter assembly: Insert the required number of Set Screws into both Set Screw slots located on the underside of the Eaves/Gutter. This is most easily achieved with the Eaves/Gutter upside down on trestles. These are used to secure the Eaves/gutter to Supporting Post joint. Each bracket uses (4) Set Screws. The End Supporting Posts (at each end of the Eaves/Gutter employ (1) bracket. The intermediate Supporting Post(s) employ (2) brackets. Ensure that each Set Screw channel has the same quantity of Set Screws inserted and that this quantity is even.  

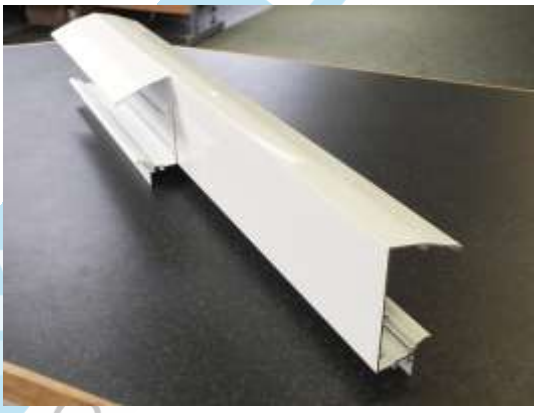
07

Assembling the Eaves/Gutter assembly:

Install Supporting Post/Eaves Gutter Brackets into Eaves Gutter. This should be undertaken whilst the Eaves/Gutter is still located on the Trestles.
The aim here is to secure one bracket in position for each Supporting Post.
Note that:
End Supporting Posts require only one Bracket and this is located on the inside face of the End Supporting Post(s).
Intermediate Supporting Posts require (2) Brackets; (1) either side of the post along the Eaves/Gutter.

In order that (1) Bracket for each Supporting Post is secured in position you will need to measure where the Posts will be located along the Eaves/Gutter and mark these positions before securing these single Brackets in position on the Eaves/Gutter.
The Brackets that are required for the intermediate Supporting Posts can be loosely secured so that they move freely along the Eaves/Gutter.
(This allows the Supporting Posts to be easily fitted to the Eaves/Gutter and Brackets when this process step is undertaken).

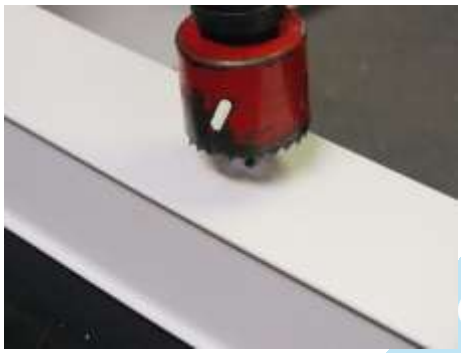
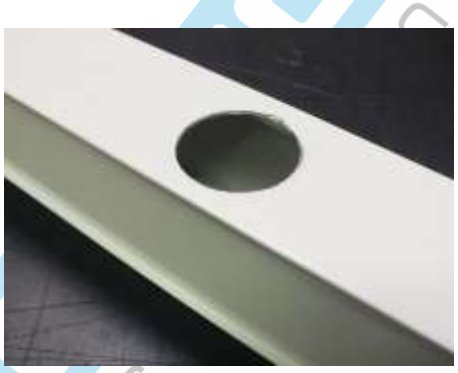
The Brackets are secured via the M6 Set Screws located in the Set Screw channels. Locate the Bracket in the Eaves/Gutter so that each of the (4) Set Screws is located through the (4) drill holes in the Bracket.
(This can be a little fiddly!)

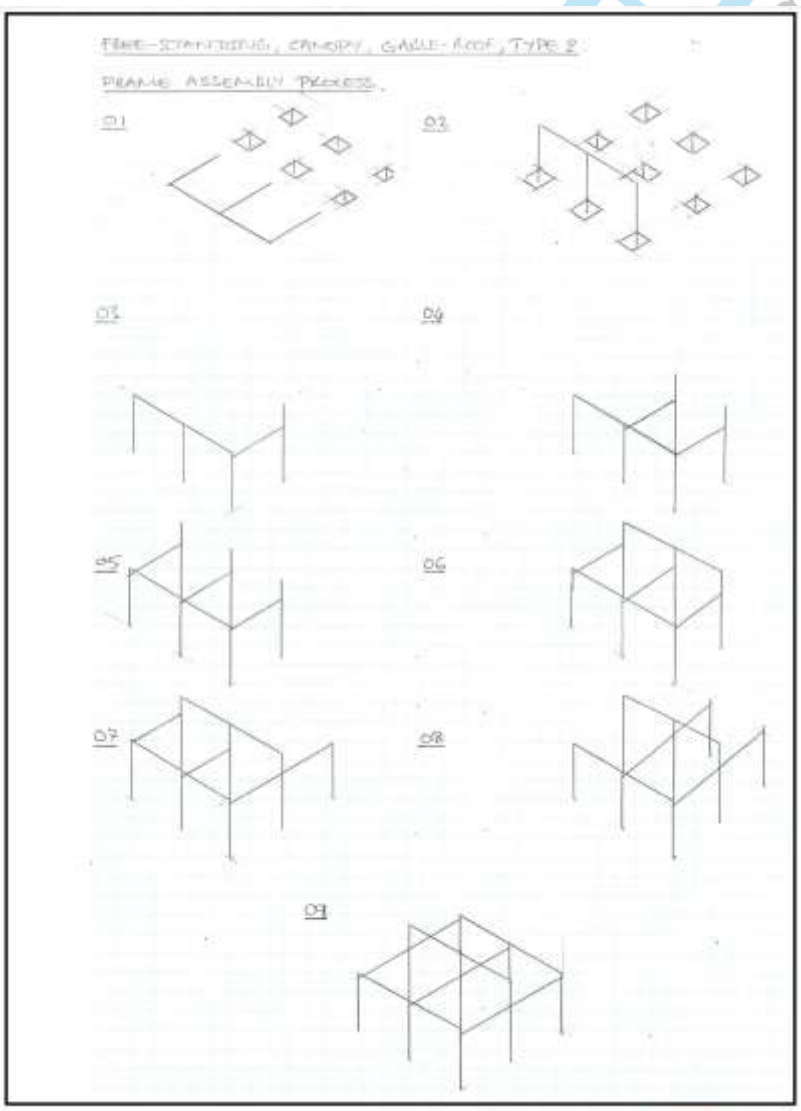
	Stage 03: Assemble Complete Ridge Assembly
8	Assembling Ridge Again, this work is most easily undertaken with the components resting on trestles. The aim of this process step is to assemble one complete ridge from the (2) ridge assemblies supplied. The (2) ridge assemblies are exactly the same. They are assembled together in the factory and then disassembled for transportation.  You will need: 1. 10mm socket(s) and 10mm spanner. 2. Silicone and gun. Assembly steps: 1. Rest (1) Ridge assembly with flat face upwards on trestles. 2. *At this stage you may choose to insert the joining plates into the slots in the ridge assemblies (one into each ridge assembly). This is not absolutely necessary, but, if undertaken the completed Ridge will be perfectly aligned.* *The joining plate to ridge assembly joining plate slots can be tight and will require patience and a soft white mallet.*  3. Run (2) parallel beads of silicone along full length of flat surface, ideally above and below pre-drilled (in the factory) holes. 4. Align the other Ridge assembly (flat face facing downwards) with the first ridge assembly.

08 (cont'd)	5. Line up both ridge assemblies so that pre-drilled holes are aligned. 6. Fix the (2) Ridge assemblies together using nuts and bolts provided. Tighten these nuts and bolts using sockets and spanners. 7. Set the complete Ridge assembly to one side in the work area, 

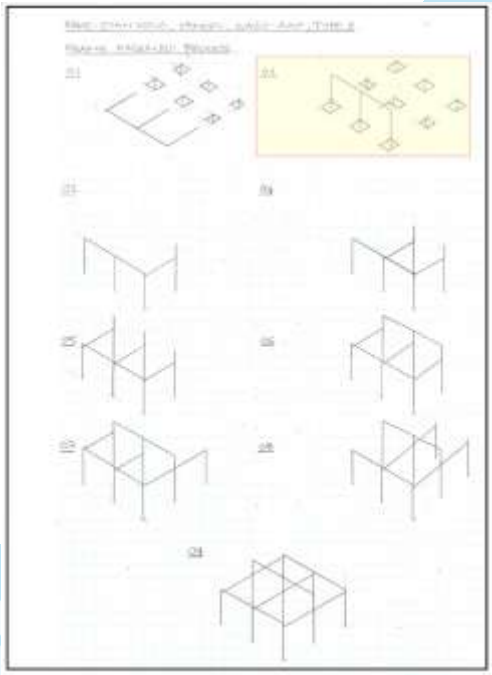
	Stage 04: Assemble (1) Eaves side Frame.
09	Fit (3) Eaves Supporting Post/Tie-Bar Bracket Assemblies (These posts are 2.750m long) with the Supporting Post Feet. ***At this stage make sure that you are happy with the length of the Supporting Post assemblies as it is still possible to change the supporting Post/Tie-Bar Bracket assembly lengths. This is driven by the need to ensure that the Tie-Bar Brackets are level in both width and projection direction.*** ***If the foundations pads are level with each other modifying the length of the supporting posts will not be necessary*** Each post has (2) Supporting Post Feet attached to one end. Set out the Supporting Post on trestles so that you are working at waist height. Insert a Post Foot into the inside of the Supporting Post. The Post Foot will slide into the channels on the inside of the Post. There is a step on the Post Foot. When the Foot is pushed home the Post Foot step will abut the end of the Post. 

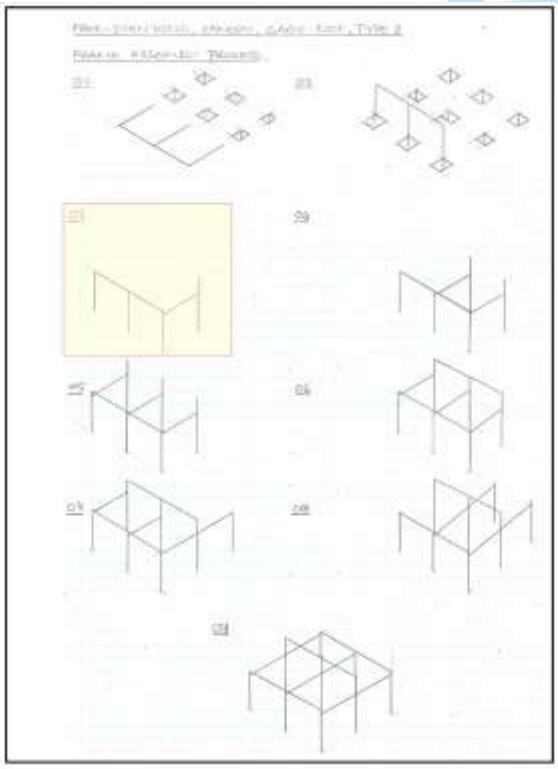
10	*If you are not confident about your levels you may wish to simply slide the Post Feet into place on the supporting posts until you are sure that when the frame is located in the foundation holes that the Eaves/Gutter at the top of the frame is level* Secure the Post Foot to the Supporting Post. With the Post Foot located in the Supporting Post drill (2) pilot holes using the 3.5mm drill, one above the other, (roughly on the centre-line of the Supporting Post) through the Supporting Post and through the Post Foot located inside the Supporting Post. When drilling the Pilot Hole, dot apply undue downward pressure as this will potentially break the drill. *As you will be drilling several Pilot Holes you will get used to the appropriate pressure to apply.* Secure the Post Foot in position using the Phillips Head Self-Tapping Screws using the PH2 Driver Bit. When driving the Self-Tapping Screw you will need to apply sufficient pressure so that the drill bit does not slip out of the screw head. *You will need a medium-to-high torque setting on your Drill/Driver in combination with applying pressure on the self-tapping screw.* *Again, this will be a technique that you will get used to and learn the correct settings that work for your installation.*  
11	Repeat Process Steps 09 – 10 for the other foot for the same Supporting Post.
12	Repeat Process Steps 09 – 11 for each Supporting Post.

13	Cut rainwater drainage hole in Supporting Post(s). The hole is cut using a hole-cutter and Power Drill/Driver. Make sure that the hole is at the correct depth (the Supporting Post is being buried in concrete). Make sure that the hole is on the correct face of the Supporting Post(s) so that the rainwater flows out of the hole in the correct direction.  
13	<u>Assemble (1) Eaves/Gutter assembly to the (3) Eaves Supporting Post assemblies to form single side frame</u> Present the Eaves/Gutter assembly to the 'top' of the Supporting Post assemblies and secure the Eaves/Gutter to the Supporting posts using the nuts and bolts. **At this stage the Eaves/Gutter is not rigid and must be handled carefully.** **It is very important that the 'centre' supporting post assembly is located directly beneath the Eaves/Gutter Assembly join. This joint must be supported.** 

	Stage 05: Install the Canopy Frame
14	Installing side frame into side foundation holes. The stages of the **Canopy Frame Assembly Process** are shown below. 

15	<u>Installing the Side Frame</u> Present the side frame to the side frame foundation holes. You are aiming at stage 02 of the Canopy Frame Assembly Process. This is a (2) person job and requires that the supporting posts are vertical (in both directions) and the Eaves/Gutter is horizontal. Judicious use of packers may help with minor adjustments to achieve a level Eaves/Gutter When you are happy that the side frame is vertical and level the frame will sit on its feet and can be propped in position if required.



16	<u>Installing the First Central Supporting Post Assembly/Tie-Bar and fixing to Side Frame</u> This is stage 03 of the Canopy Frame assembly Process. To undertake this stage of the frame assembly process you will need: 1. (1) Tie-Bar. 2. (1) Central Supporting Post assembly. 

17

Installing the first Central Supporting Post Assembly/Tie-Bar and fixing to Side-Frame

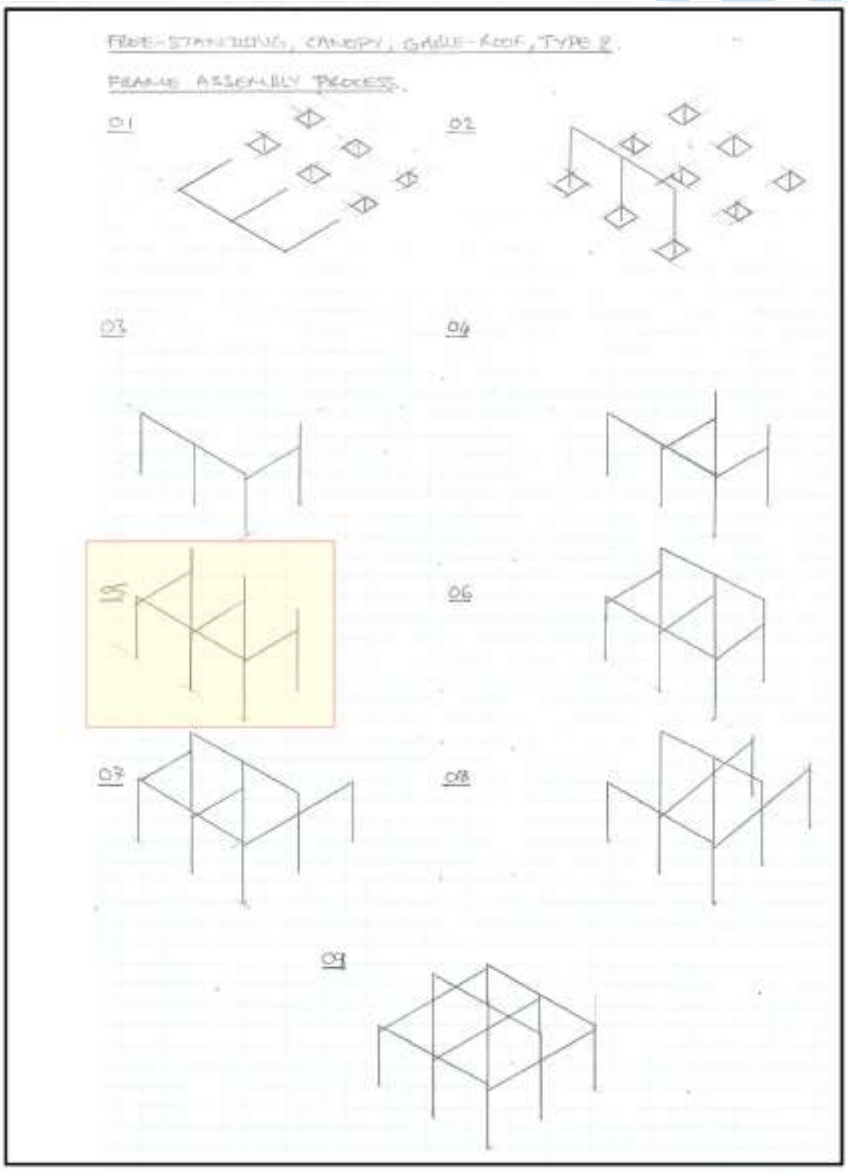
1. Slide Supporting Post Feet into bottom of Central Supporting Post Assembly.
2. Insert Central Supporting Post Assembly into edge foundation hole of central row of foundation holes.

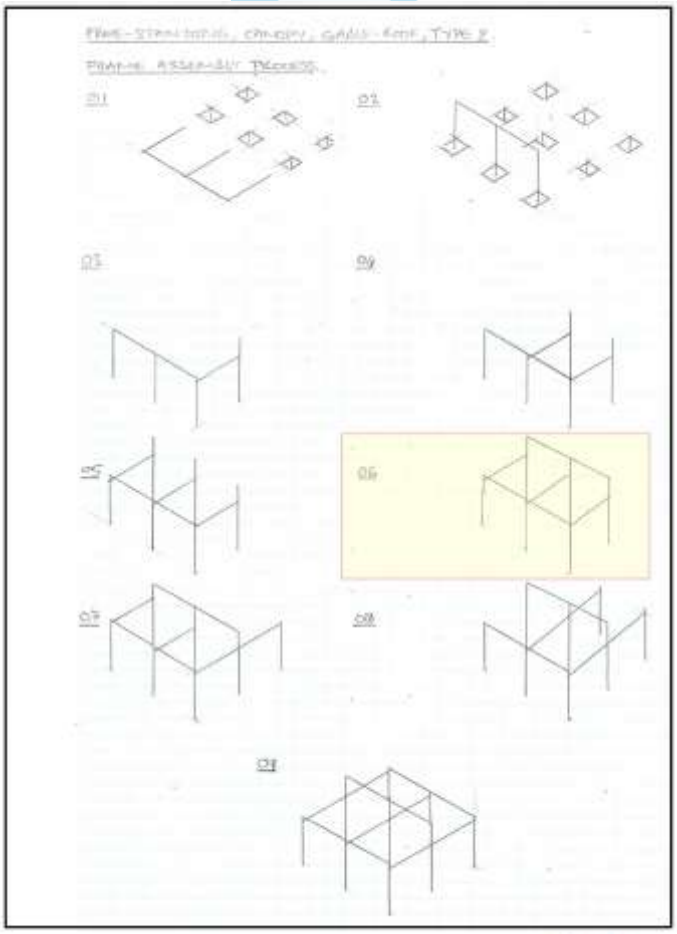
3. Slide Tie-Bar onto Tie-Bar brackets of Central Supporting Post Assembly and the immediately adjacent Eaves Supporting Post Assembly.

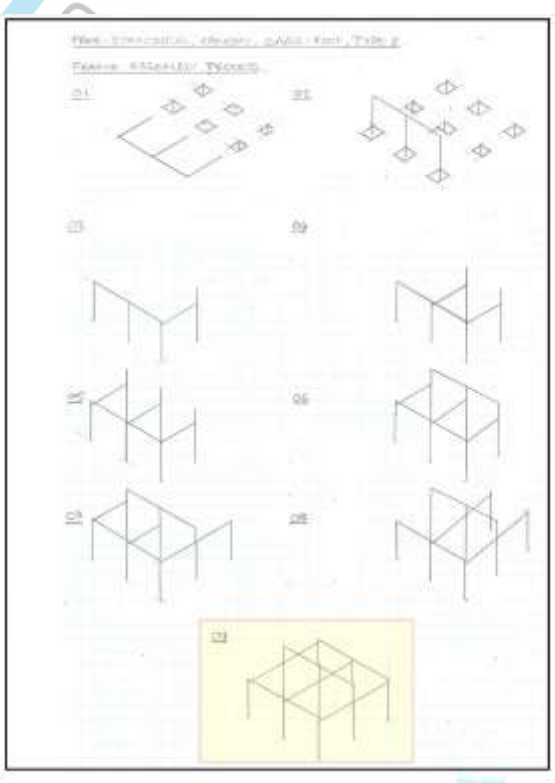
4. Check levels and that Supporting Posts are vertical in both directions.
5. Secure Feet to Central supporting Post assembly (see Stages 10, 11, 12 for details).
6. Secure the Tie-Bar to both Tie-Bar Brackets using
   Drill Driver,
   (4) No.12 x 13 4.6 dia. Self-Tapping Screws per Bracket.
   Phillips Head PH3 Bit.

7. Re-Check all levels and posts for vertical alignment in all both directions.
8. Secure **all** Post Supporting Feet to Foundation pads.

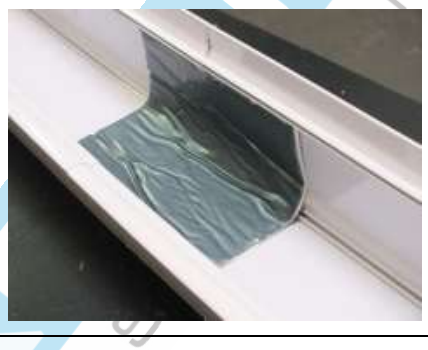
17 (cont'd.)	Secure all joints with the requisite quantity of fixings.    

18	<u>Install Remaining (2) Central Supporting Post Assemblies,</u> Repeat Stage 17 for remaining (2) Central Supporting Post Assemblies This will complete Stages 04 and 05 of The Canopy Frame Assembly Process. 

19	<u>Install Ridge Assembly onto (3) Central Supporting Posts</u> This stage will require steps or platform to safely access the top of the Central Supporting Posts. Once the Ridge Assembly is seated on the top of the Central Supporting Post assemblies it can be secured with (4) self-Tapping screws ((2)/side screwed into 3.5mm pilot holes through the Ridge flanges into the Central Supporting Posts.  This completes Stage 06 of the Canopy Frame Assembly Process. 

20	Install 2nd row of Eaves Supporting Post Assemblies and Tie-Bars. Repeat Stage 17 for 2nd. Row of (3) Eaves Supporting Post Assemblies and Tie-Bars.
21	Assemble (1) Eaves/Gutter assembly to the (3) Eaves Supporting Post assemblies to form single side frame Present the Eaves/Gutter assembly to the 'top' of the Supporting Post assemblies and secure the Eaves/Gutter to the Supporting posts using the nuts and bolts. **At this stage the Eaves/Gutter is not rigid and must be handled carefully.** **It is very important that the 'centre' supporting post assembly is located directly beneath the Eaves/Gutter Assembly join.** **This joint must be supported.**  This completes Stage 09 of the canopy Frame Assembly Process 

22	Cut Drainage holes using Hole saw in base of gutter. Ensure that the hole cut is over the Supporting Posts that are acting as down-pipes. Cut Out Rainwater Drainage Hole in Eaves/Gutter. Use 1 51mm diameter HoleSaw and the Drill/Driver to cut the hole required in the Eaves/Gutter. You will need to be above the Eaves/Gutter to do this. Therefore you will need to use a secure and stable Stepladder. Make sure that the centre of the hole to be cut is immediately central to the Supporting Post (located below the Eaves/Gutter).  Please note that in this picture the Eaves/Gutter end-Plate has been removed to show the HoleSaw position.
23	Prepare and fit Rainwater adaptor. If necessary trim the flange of the Rainwater Adaptor so that it will sit flat on the bottom of the Eaves/Gutter. Apply bead of silicone to the lower surface of the flange of the Rainwater Adaptor. Insert Rainwater Adaptor into the hole cut with the 51mm dia. Hole saw. Ensure that the flange sits flat on the bottom of the Eaves/Gutter all around the Rainwater Adaptor. On larger canopies more than one rainwater outlet will be required. The quantity of Rainwater Adaptors supplied will indicate the number of rainwater outlets recommended.  

24	Seal Joints in Eaves/Gutter Smooth silicone over the join of the Eaves/Gutter on both the inside and outside of the join.  Apply Flashband to internal join of the (2) Eaves/Gutters. This is to seal the join in the gutter. 
25	Install End Caps on Ridge Ends On Steps or platform install (2) Wallplate End caps (Ridge end caps) using No.8 x 16mm Self-Tapping Screws and driver to both Ridge ends. 

	Stage 06: Fit Edge Glazing Bars
26	Fit the Edge Glazing Bars; one to each end of the canopy. There is flexibility along the length of the Edge Glazing Bar in the exact position the Edge Glazing Bars are secured to the Wall-Plate at one end of the Edge Glazing Bar and the Eaves/Gutter at the other end. The Standard projections of the canopy are achieved with the position of the Self-Tapping Screw located: 18mm from the end of the Edge Glazing Bar at the Eaves/Gutter. 42mm from the end of the Edge Glazing Bar at the Wall-Plate. Please note that these are nominal positions and you do have flexibility in the exact positioning of the Self-Tapping Screw fixings on the Edge Glazing Bar. When you are happy with the position of the Self-Tapping Screw and have secured the Edge Glazing Bar in position you may want to make a small block (of wood) to act as a locating device for the other Edge Glazing Bar and the Main Glazing Bars. This block is referred to as the ***Glazing Bar Setting Block*** later in this Installation guide. This block would sit in the Eaves/Gutter abutting the inside edge of the Eaves/Gutter and the end of the Edge Glazing Bar. You may use another wood block for the Wall-Plate end of the Edge Glazing Bar. Check your levels again. Secure the Edge Glazing Bar in position using (2) Self-Tapping Screws; (1) at the Eaves/Gutter end and (1) at the Wall-Plate end.    

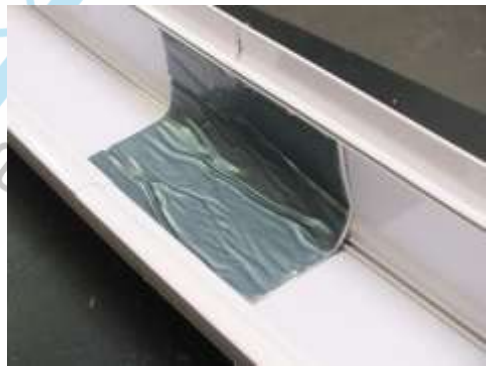
	Stage 07: Fit Roof Panels and Main Glazing Bars
27	Starting at one end of the canopy. Remove the protective file from the periphery of both sides of the polycarbonate panels. Make sure that the panel is in the correct orientation: 1. Top side of panel facing upwards (this will be the side of the panel with the protective film with the writing on it). 2. The end of the panel with the breather tape fitted is located at the Eaves/Gutter side of the canopy. Slide the panel into the pocket of the Edge Glazing Bar. Slide the Main Glazing Bar (pocket) onto the other side of the roof panel. Rest this Main Glazing Bar on the Eaves/Gutter and Wall-Plate. Locate the ***Glazing Bar Setting Block*** (described in process step 27) at the end of the Main Glazing Bar so that the Main Glazing bar is in position and aligned with the Edge Glazing Bar. At this point the Roof Panels and the Main Glazing Bars are NOT to be fixed in position. Repeat this process, alternatively fitting Roof Panels and Main Glazing Bars until the last Roof Panel is to be fitted.   This Main Glazing Bar must be positioned before securing with the Self-Tapping Screws. The spacing between the Glazing Bars is given in the **Main Glazing Bar Spacing Sheet** (attached to the end of these instructions). When the correct position for this Main Glazing Bar is achieved (this may require some 'tapping' with the White Rubber Mallet as described in the next Stage (Stage 07), secure with Self-Tapping Screws at the Wall-Plate and Eaves Gutter. This will require (4) Self-Tapping Screws; (2) at the Wall-Plate end of the Main Glazing Bar and (2) at the Eaves/Gutter end of the Main Glazing Bar.

	Fitting the last Roof Panel. Undo the Self-Tapping Screw that is fixing the Edge Glazing Bar to the Eaves/Gutter. Move the Edge Glazing Bar outwards from the canopy (rotating around the Edge Bar fixing to the Wall-Plate. Slide in the last Wall-Plate into the pockets in the Glazing Bars at the Wall-Plate end of the Roof Panel. Bring the Edge Glazing Bar back into position, sliding the roof panel into the pockets of the Glazing Bars as the Edge Glazing Bar is brought back into position. Re-secure the Edge Glazing Bar.

	Stage 08: Positioning the Main Glazing Bars
28	The Main Glazing Bars should be positioned so that the space between the Glazing Bars is consistent. The reason for this is to make sure that there any expansion for each of the roof panels can be accommodated. The distance between the edge of each Glazing Bar is given on the **Main Glazing Bar Spacing Sheet**. The Main Glazing Bars can be moved by tapping with a White Rubber Mallet.  Mark position of Main Glazing Bars with Soft Lead Pencil on the Main Glazing Bar, the Eaves/Gutter and the Wall-Plate. DO NOT secure Main Glazing Bars yet.

	Stage 09: Fitting Sheet Closures to Roof Panels
29	The Sheet Closures must be cut to the required length. For standard size canopies the required size for the Sheet Closures are shown on **Main Glazing Bar Spacing Sheet**. The Sheet Closure required length is the same as the required spacing between the Glazing Bars. The Sheet closures should be cut square. This is most easily achieved using a Sliding Compound Mitre Saw. Before fitting the Sheet Closure to the Roof Panel, lift (every other) Main Glazing Bar whilst standing on a Step Ladder at the Eaves/Gutter end of the canopy and loosen the End Caps on these main Glazing Bars and rotate the End Caps through 90 degrees. Insert a bead of silicone sealant along the underside of the top 'fork' of the Sheet Closure.  Slide the Sheet Closure onto the end of the Roof Panel. Re-secure the End Cap on the Glazing Bar in the original orientation. The Sheet Closures sit behind the End Caps of the Glazing Bars. Repeat for each Sheet Closure.

	Stage 10: Fixing Main Glazing Bars
30	Check that the positions marked in Process Step 29 are aligned on the Main Glazing Bars, Wall-Plate and Eaves/Gutter. Check that the alignment of the Main Glazing Bars with The edge Glazing Bars is correct using the ***Glazing Bar Setting Block*** (described in Process Step 27).  Secure the Main Glazing Bars using (4) Self-Tapping Screws; (2) at the Wall-Plate end of the Main Glazing Bar and (2) at the Eaves/Gutter end. 

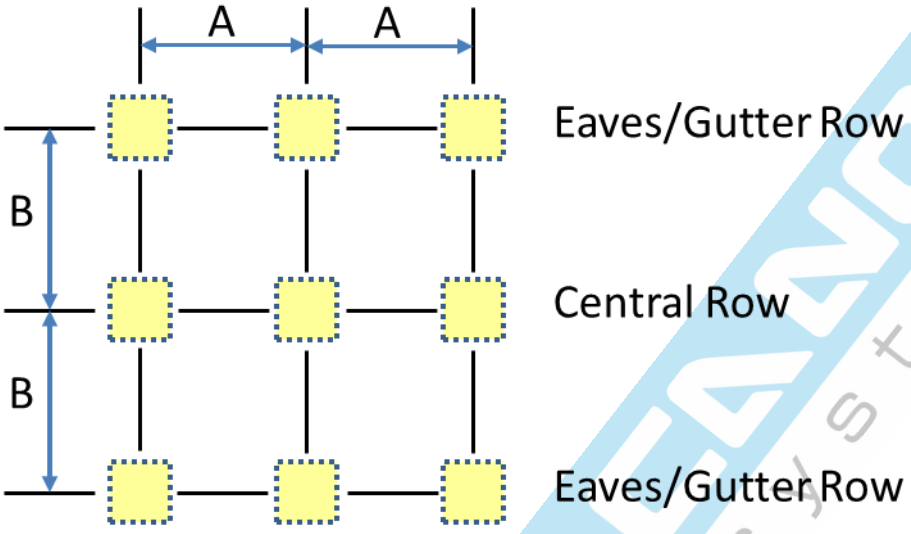
	Stage 11: Secure Supporting Post Feet in Foundations
31	Pour Concrete mix into Supporting Post Holes covering the Supporting Post Feet with recommended 750mm cube of concrete.  Make good surface as required.
32	***This Process Step only applies if there are (2) Eaves/Gutter assembly sections to be installed.*** ***This will be the case for canopies that are 6.3m (and over) in width.*** Apply Flashband to internal join of the (2) Eaves/Gutters. This is to seal the join in the gutter. 

Main Glazing Bar Spacing

Canopy Width (mm)	Wall-Plate and Eaves/Gutter width (mm)	Qty. of Edge Bars per roof pitch	Qty. of Glazing Bars per roof pitch	Qty. Panels per roof pitch	Panel width (mm)	Edge bar base width (mm)	Glazing Bar base width (mm)	Space between each bar (mm)	Space to be allowed between each glazing bar (mm)	Dimension from same edge to same edge, glazing bar to glazing bar (mm)
6,206	6,200	2	8	9	675	35	60	627.78	628	688
7,006	7,000	2	9	10	686	35	60	639.00	637	697
8,006	8,000	2	11	12	653	35	60	605.83	606	666
6,206	6,200	2	8	9	675	35	60	627.78	628	688
7,006	7,000	2	9	10	686	35	60	639.00	637	697
8,006	8,000	2	11	12	653	35	60	605.83	606	666

(Also) Length of Sheet Closures (mm)

Setting Out Foundation Holes



Canopy Dimensions	Dimension A (Supporting Post Centres)	Dimension B (Supporting Post Centres)	Qty. of Foundation Holes
6.2m W x 6.2m P	3,062mm	3,075mm	9
7.0m W x 6.2m P	3,462mm	3,075mm	9
8.0m W x 6.2m P	3,962mm	3,075mm	9
6.2m W x 7.0m P	3,062mm	4,075mm	9
7.0m W x 7.0m P	3,462mm	4,075mm	9
8.0m W x 7.0m P	3,962mm	4,075mm	9

Care and Maintenance

Your Omega canopy will require very little care and maintenance.

The metalwork is powder coated in polyester. This is very hard-wearing.
The roof panels are formed in polycarbonate. This is 200 times stronger than glass and is highly impact resistant.

Cleaning

1. The metalwork can be cleaned with a soft cloth and soapy water.
2. The (polycarbonate) roof panels can be cleaned:
    a. Gently wash sheet with a solution of mild soap and lukewarm water, using a soft, grid-free cloth or sponge to loosen any dirt or grime.
    b. Fresh paint splashes, grease and smeared glazing compounds can be removed easily before drying by rubbing lightly with a soft cloth using petroleum ether (BP65), hexane or heptane. Afterwards, wash the sheet using mild soap and lukewarm water.
    c. Scratches and minor abrasions can be minimised by using a mild automobile polish. Test on a small area of sheet before using on the entire sheet is recommended.
    d. Finally, thoroughly rinse with clean water to remove any cleaner residue and dry the surface with a soft cloth to prevent water spotting.

Other important instructions for (polycarbonate) roof panels:

1. Never use abrasive or highly alkaline cleaner on polycarbonate materials.
2. Never use aromatic or halogenated solvents like toluene, benzene, gasoline, acetone or carbon tetrachloride on polycarbonate materials.
3. Use of in with polycarbonate sheet can cause structural and/or surface damage.
4. Contact with harsh solvents such as methyl ethyl ketone (MEK) or hydrochloric acid can result in surface degradation and possible crazing of polycarbonate sheet.
5. Never scrub with brushes, steel wool or other abrasive materials.
6. Never use squeegees, razorblades or other sharp instruments to remove deposits or spots.
7. Do not clean polycarbonate in direct sunlight or at high temperatures as this can lead to staining.
8. For all mentioned chemicals consult the manufacturers' material safety data sheets for proper safety precautions.