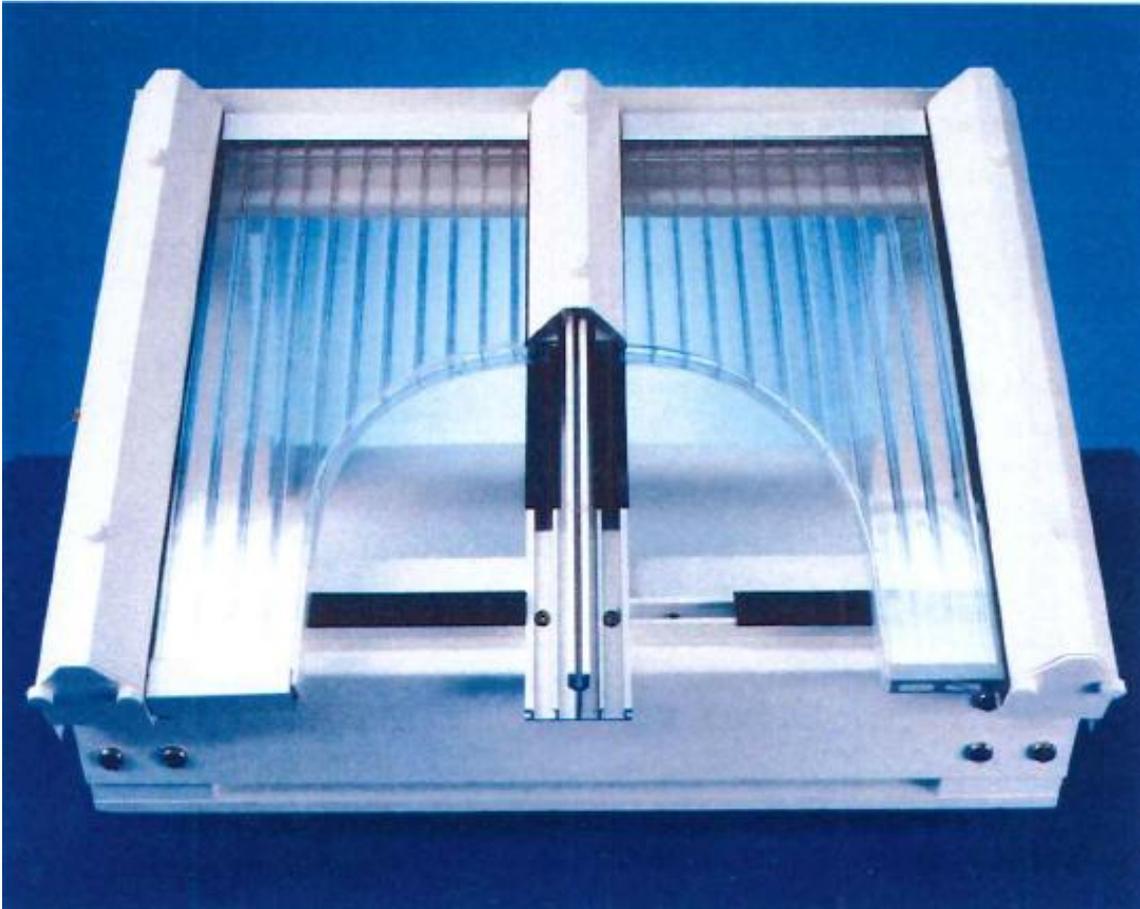


Fixing Instructions for the Medium Span Structural Glazing System



Tools you will need to construct your Medium Span Structural System Roof:-

Tape Measure

Screwdriver

Spirit Level

Hacksaw

Drill

Hammer

System Description

The Medium Span Structural System is designed for installing Multiwall polycarbonate glazing and will span up to 3200mm unsupported when glazed with Multiwall polycarbonate. It consists of an Aluminium Base Bar and a screw down Aluminium Capping Bar which clamps the Multiwall glazing firmly and securely in place. If used in an application with enclosed sides, it should be used with a UPVC Thermal Underclad Base Cover clipped to the Base Bar to help prevent condensation forming.

Design Detail

Multiwall polycarbonate is normally used on a roof with a gentle slope, which will allow rainwater to drain into guttering. A minimum slope of 5 degrees is recommended. The Medium Span Structural System can be used with Multiwall sheets up to 25mm thick.

Sheets of polycarbonate will expand and contract as temperatures change, and room should always be left to accommodate expansion when joining sheets on glazing bars (Fig.1) Sheet widths should be reduced by 10mm to allow for expansion. For example, if you are installing 16mm sheets and your glazing bars are 990mm apart (centre to centre), use a 980mm wide sheet (Fig.2)

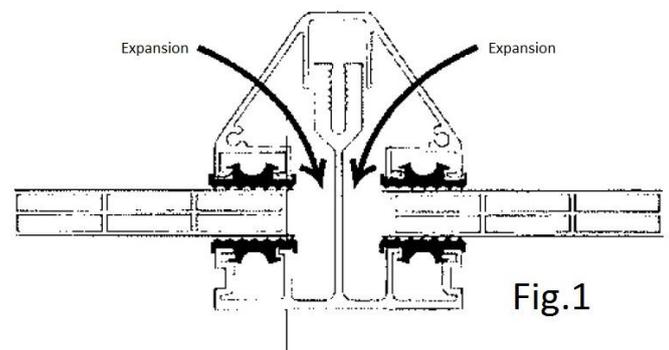


Fig.1

Sheet Thickness	Glazing Bar Centres	Spans Unsupported
10mm	700mm	3200mm
16mm	1000mm	3200mm
25mm	1250mm	3200mm

When measuring up for your roof sheets, remember your sheet should be 10mm shorter than your glazing bars to allow for the fitting of aluminium U profile end closures.

Span Requirements

If a longer span than 3200mm is required, the Base Bar can be fitted onto purlins or rafters. The Base Bar must be fitted at; the eaves, the ridge, and to any purlin. If fitting to rafters, the Base Bar should be secured to the rafter every 300mm.

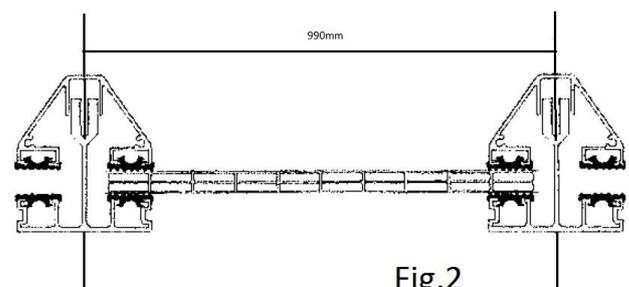
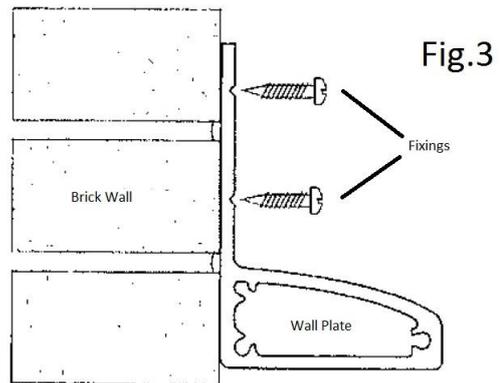
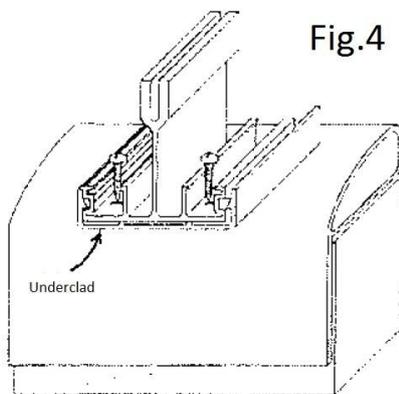


Fig.2

Step 1: Fit the Aluminium Wall Plate. The Wall Plate can accommodate the Medium Span Structural System Glazing Bar Systems at angles ranging from 5 degrees to 25 degrees (Fig.3). For a neat finish fix an end plate to each end of the Wall Plate.



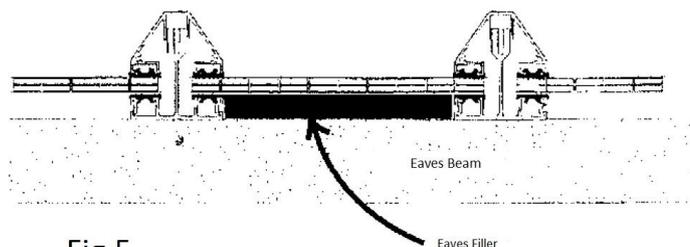
Step 2: Fit the Aluminium Eaves Beam. The Eaves Beam can accommodate the Medium Span Structural System Glazing Bar Systems at angles ranging from 5 degrees to 25 degrees. For a neat finish fix an end plate to each end of the Eaves Beam.



Step 3: Screw the Aluminium Base Bar to the Eaves Beam and Wall Plate and to any purlins if they are being used, remembering to start and finish the roof with a Base Bar (Fig.4)

Step 4: Fit the Eaves Filler at the eaves end of the structure. This fills in the gap between the underside of the sheet and the top of the support structure (Fig.5). If other materials are being used as a wall plate and / or eaves beam, please use barrier tape to avoid electrolyte corrosion between the Glazing Bar and the Wall Plate / Eaves Beam.

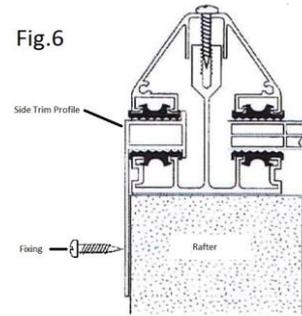
Step 5: Cut the Capping Bar to the required length and drill the cap at regular intervals with holes no more than 300mm apart, ensuring the holes line up uniformly with the holes on each of the other bars once on the roof. The drill holes should be of a size to accommodate a 10swg screw.



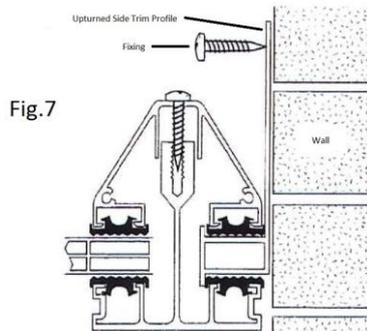
You can now start to fix the roof sheets; starting at one side of the roof and working across, fixing and dressing down flashings as you go.

Please note, the Multiwall sheets are UV coated on one side only. The sheet has a protective film on both sides, but only one side is printed. This is the side that should face outwards towards the sun. Do not forget to remove the masking film on both sides of the sheet. The ridge end of the sheet is sealed with solid Aluminium tape and the gutter end with anti-dust breather tape.

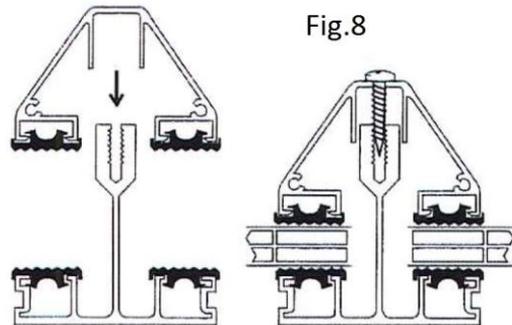
Step 6: Having already fitted a Base Bar to one end of the roof, fix a Aluminium Side Trim Profile over the Base Bar to the side of the fascia or building (Fig.6)



Step 7: If butting a sheet up to a wall, simply upturn the Aluminium Side Trim Profile, fit to the wall and flash over (Fig.7)

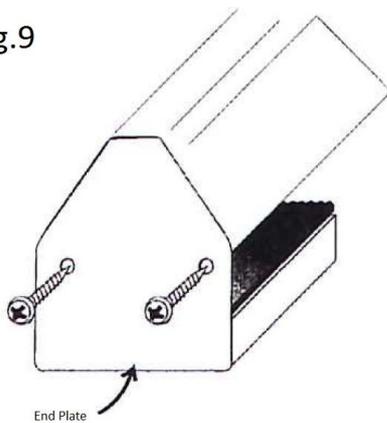


Step 8: Fix the top Aluminium U Profile End Closure over the sheet. Locate the sheet over the Base Bar leaving room for expansion. Ensure the sheet is level and fit the Capping Bar using the recommended screws, capping each screw with a screw cover cap (Fig.8)



Step 9: Place an adjoining sheet into position with the top Aluminium U Profile End Closure fitted. Repeat this procedure for the remaining panels ensuring screws are not over tightened as this will limit the expansion and compress the sheet.

Fig.9

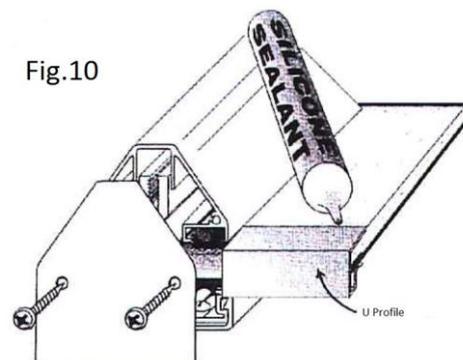


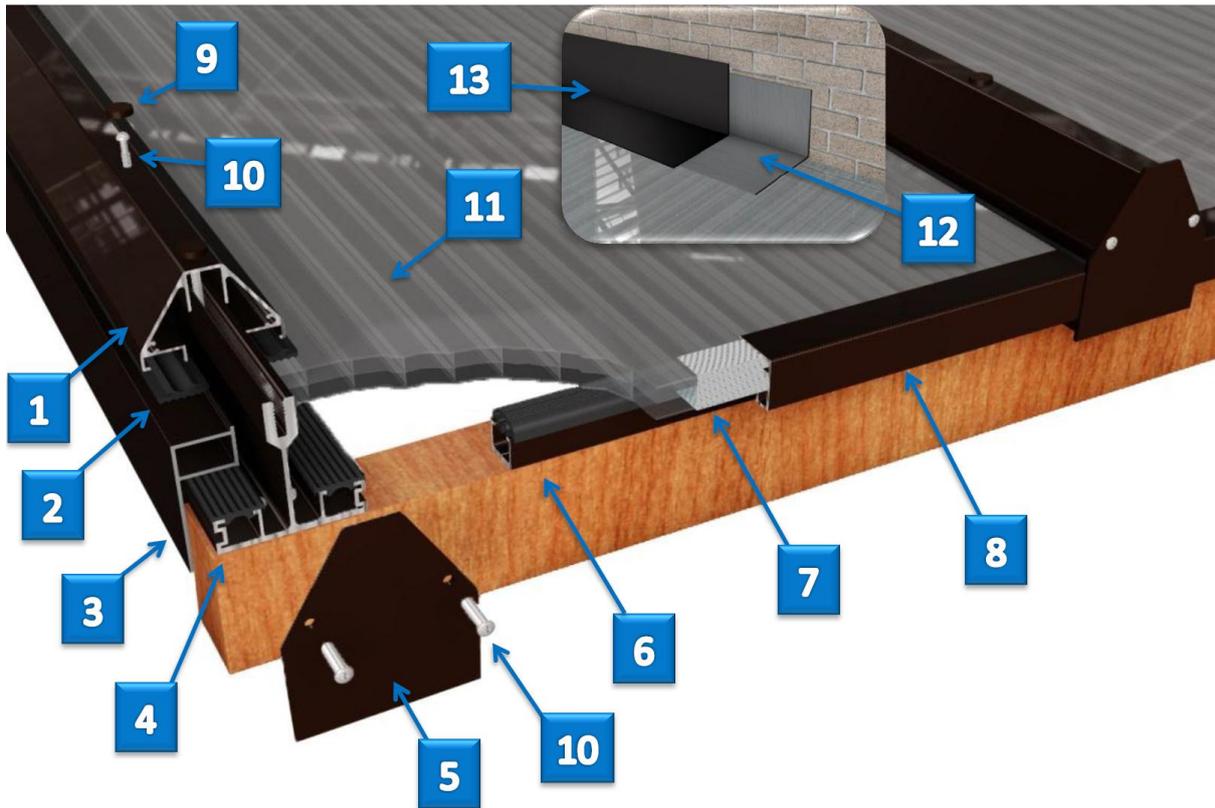
Step 10: Screw the Plastic End Plate onto the end of the Glazing Bar System (Fig.9)

Step 11: Measure and accurately cut the Aluminium U Profile End Closure to the exact length and fix over the anti-dust breather tape at eaves end of the sheet between the Glazing Bars. A small bead of silicone sealant can be applied to the upper side of the sheet along the line where it meets the U profile. Smooth this out to give a neat finish (Fig.10). Only use silicone sealant that is compatible with polycarbonate.

Step 12: Finally dress down the Butyl Flashing.

Fig.10





1	Capping Bar	8	Aluminium U Profile End Closure
2	Capping Bar Gasket	9	Screw Cover Caps
3	Aluminium Side Trim Profile	10	Fixing Screw
4	Base Bar (with Gasket)	11	Multiwall Polycarbonate
5	Screw Fit Plastic End Plate	12	Lead look / White Butyl
6	Aluminium Eaves Filler	13	Aluminium Capping
7	Breather Tape		

As our policy is one of continuous improvement, we reserve the right to change specifications without prior notice. All information, recommendations or advice, written or verbal, is given in good faith and to the best of our knowledge