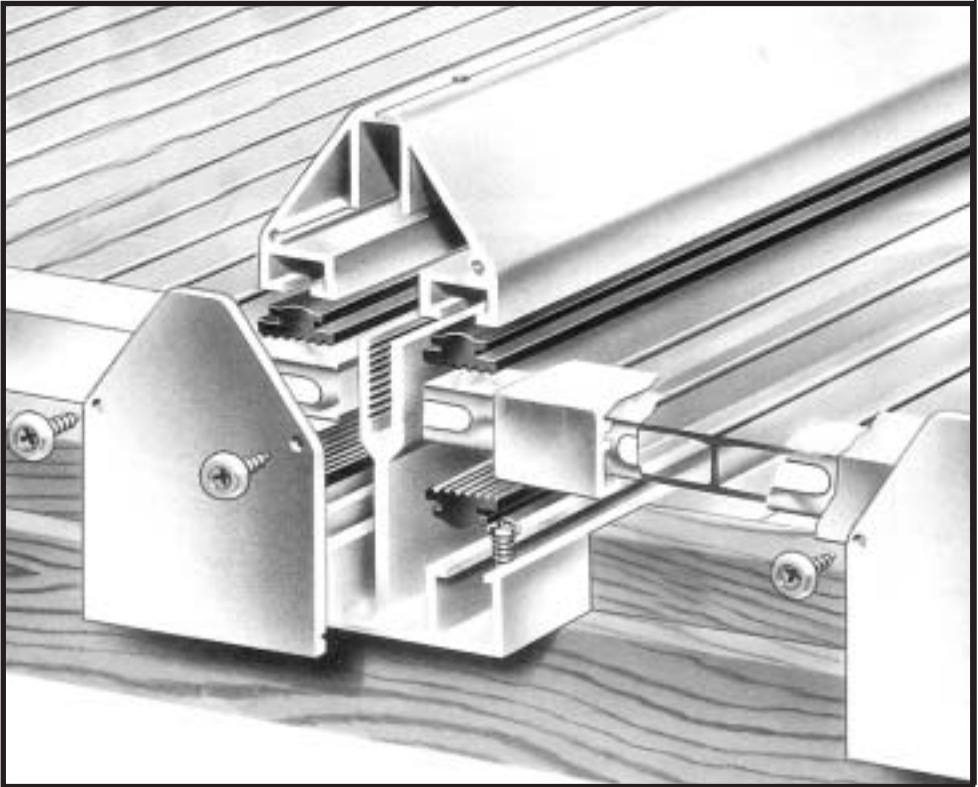


TWINFIX

Fixing Instructions for the Twinfix 280 Structural Glazing Bar System



Tools you will need to construct your Twinfix roof:

Tape Measure
Screwdriver
Spirit Level
Hacksaw
Drill
Hammer

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System Description

The 280 System is designed for installing multiwall polycarbonate glazing and will span up to 3500mm unsupported. It consists of an aluminium base bar and a screw on aluminium capping bar which clamps the multiwall glazing firmly and securely in place. A wide range of complementary items, fixing accessories and matching profiles are available. The 280 System can also be supplied with a PVCu thermal underclad.

Design Detail

Multiwall polycarbonate sheet is normally used on a roof with a gentle slope, which will allow rainwater to drain into guttering. We recommend that the minimum slope should be 5 degrees. The 280 System can be used with 10mm, 16mm, 20mm and 25mm sheet.

Sheets of polycarbonate will expand and contract as temperatures change, always leave room to accommodate expansion when joining sheets on glazing bars. Sheet widths should be reduced by approximately 20mm to allow for expansion. For example, if your glazing bars are 1000mm apart (centre to centre), use a 980mm wide sheet.

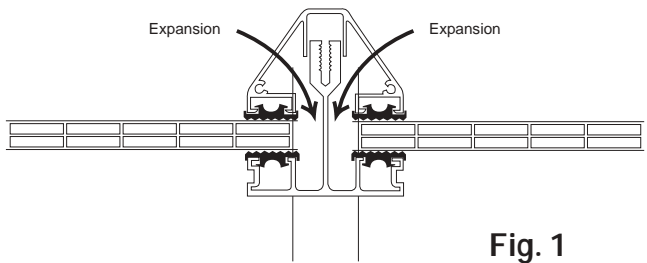


Fig. 1

Sheet Thickness	Glazing Bar Centres	Spans Unsupported
10mm	700mm	3500mm
16mm	1000mm	3500mm
25mm	1200mm	3500mm

When ordering or cutting polycarbonate sheet to required length remember that your sheet should be 10mm shorter than your glazing bars to allow for the fitting of aluminium U profiles. We can supply you with sheet that has been cut to size, blown and sealed in our factory, (in which case disregard steps 6 and 7).

Purlins and rafters are rarely needed when using the 280 System as the bar can support itself up to 3500mm. 16mm sheet can be accommodated on glazing bar centres of no more that 1000mm (Fig. 2).

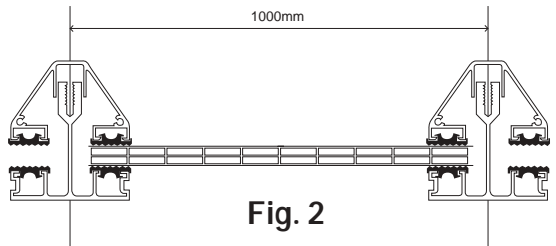


Fig. 2

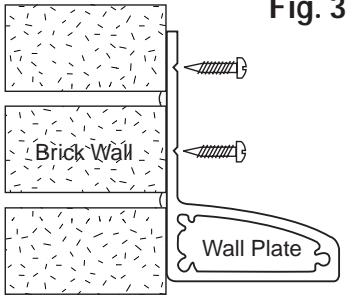


Fig. 3

Step 1: Fit the aluminium wall plate (Ref. 290). The wall plate can accommodate all Twinfix bar systems at angles ranging from 5 degrees to 25 degrees (Fig. 3). Fix the end plate for a neat finish to the end of the wall plate.

Step 2: Fit the aluminium eaves beam (Ref. 291) to the eaves end of the structure. The eaves beam can accommodate all the Twinfix bar systems at angles ranging from 5 degrees to 25 degrees. Fix the end plate for a neat finish to the ends of the eaves beam.

Step 3: If required fit the underclad (Ref. 284) to the base bar (Ref.

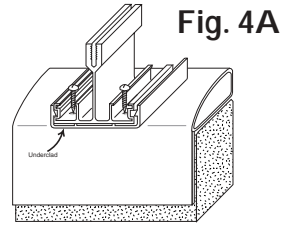


Fig. 4A

283). Screw the aluminium base bar to the eaves beam and wall plate and to purlins if they are being used (Fig. 4A), remembering that a glazing bar will be needed at each side of the roof. Slide in the 280G gasket. Please note, if buying the bars in the pre-packs, the gasket is supplied already pressed into the bars.

Step 4: Fit eaves filler (Ref. 285F) at the eaves end. This fills the gap between the underside of the sheet and the top of the support structure (Fig. 4B). If other materials are being used as a wall plate and/or eaves beam, please use barrier tape to avoid electrolyte corrosion between the 280 glazing bar and the wall plate and/or eaves beam.

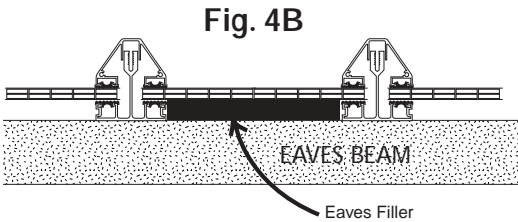


Fig. 4B

Step 5: Cut the glazing bar cap (Ref. 280) to the required length and pre-drill the cap at regular intervals with holes no more than 400mm apart ensuring that the holes will line up uniformly with the holes on each of the other bars once on the roof. Slide the 280 gasket into each side of the glazing bar. Please note, if buying the bars in pre-pack, the gasket is supplied already pressed into the bars.

Step 6: Ensure the sheet is free of any swarf or dirt by blowing air through the flutes and sealing the ridge end of the sheet using blanking tape (Ref. BT 10/16/25). This permanently closes the ridge end of the sheet and stops further ingress of dirt or moisture (Fig. 5). Sealing the sheet can be done at the factory prior to delivery.

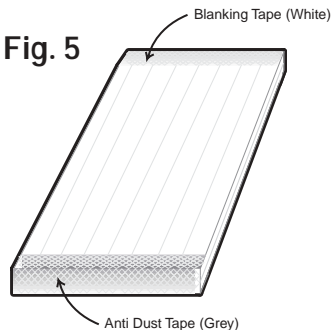


Fig. 5

Step 7: Seal the eaves end of the sheet with anti-dust tape (ADT 10/16/25), this closes the eaves end helping to prevent dust entry whilst allowing condensation drainage (Fig. 5). Sealing the sheet can be done at the factory prior to delivery.

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: Multiwall polycarbonate has protective film on both sides, however only one side is printed. This is the side that should face outwards. Do not forget to remove the masking film on the underside of the sheet.

Step 8: Having already fitted a glazing bar base (Ref. 283) to one end of the structure, then fix a side trim (Ref. 272/275) over the glazing bar base to the side of the fascia or building (Fig.6).

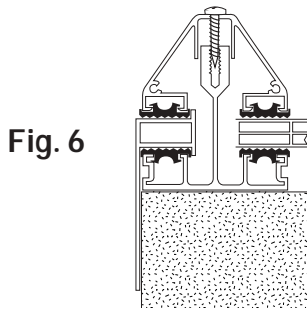


Fig. 6

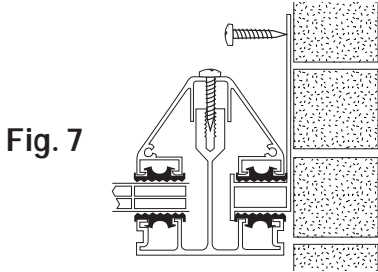


Fig. 7

Step 9: If butting a sheet up to a wall face, simply upturn the side trim profile (Ref. 272/275) (Fig. 7).

Step 10: Fix the top U profile (Ref. 252-255) over the sheet (Fig. 10). Locate the sheet over the 283 base bar leaving room for expansion. Ensure the sheet is level and then fit the glazing bar cap (Ref. 280) using the recommended screws, protecting them with the screw cover cap (Fig. 8).

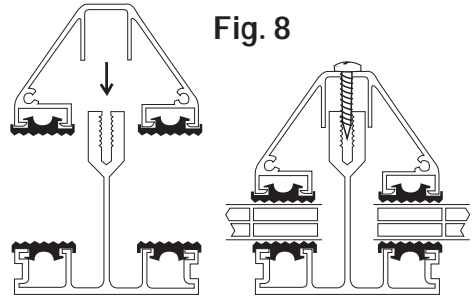


Fig. 8

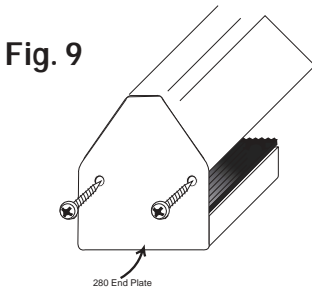


Fig. 9

Step 11: Place an adjoining sheet into position with top U Profile fitted. Repeat this procedure for the remaining panels ensuring that screws are not over tightened as this will limit the expansion and compress the sheet. On the end panel repeat step 8 to finish off.

Step 12: Screw fit the polycarbonate end plate (Ref. 280EP) onto the end of the 280 glazing bar (Fig. 9).

Step 13: Accurately cut the aluminium U profile (Ref. 252-255) to the appropriate length and fix over the antidust tape at the eaves end of the sheet between the end plates. If you wish a small bead of silicone sealant can be applied to the upper side of the sheet long the line where it meets the U profile (Fig. 10) and smooth to give a neat finish. Only use silicone sealant that is compatible with multiwall polycarbonate.

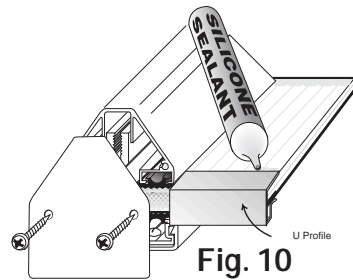


Fig. 10

Step 14: Final dressing of the Butyl Flashing (Ref. 200/10).