

Section 1... Specifications..



Conservatory roofs, Atrium glazing, Rooflight & Entrance canopies

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Section 1 Skycrest - 1

Information sheet product

- **GENERAL.**

All styles of roof are good looking and traditional in appearance and are designed to be strong and easy to assemble requiring the bare minimum of tools.

- **RAFTER BARS.**

Only one bar need be used for all styles of construction. The bar is extruded aluminium and is used for rafters, wall plates and ridges and is traditional in appearance. It is extremely strong and is thermally broken to drastically reduce the possibility of condensation. The method of glazing retention is by a screwed cap which provides additional security and all bars and glazing caps are painted by the powdercoating which process gives a first class and lasting finish.

- **COMPONENTS.**

The roof designs ensure simplicity of assembly in that all joints, angles mitres etc are taken care of by the use of aluminium components which house the rafter bars and form the angled joints. The components are finished using a powder coated paint process.

- **RING BEAM.**

Every conservatory should have a structural support between the top of the windows and the roof. This is known as a ring beam and its purpose is to provide strength and rigidity, to distribute the weight of the roof and provide the necessary height above the windows for fitting the gutter. Our ring beam is made of extruded aluminium and is thermally broken. It will fit all sections up to 75mm in width and has powdercoat finish. It also provides a gasket seal to the underside of the glazing.

- **FIXINGS.**

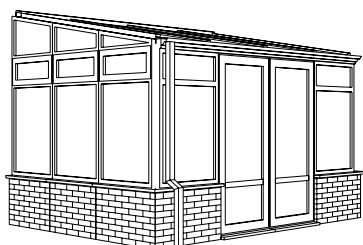
All gaskets, screws and required fixings needed for the roof assembly are supplied. All are appropriately coated to offer protection against the elements.

- **1/** Easy to assemble, only a spanner and screwdriver needed to erect. All drilling prepared and bolts and screws included. No awkward angles to cut or calculate.
- **2/** The roof system is manufactured using structural aluminium glazing bars, adequate for spans in excess of those found on the average domestic conservatory.
- **3/** Thermal barrier incorporated to reduce risk of condensation, roof sheet held in by double gaskets to eliminate draughts.
- **4/** The aesthetically pleasing bar projects downward from roof sheet with decorative mouldings on underside resembling more its Victorian origins. Decorative aluminium castings included throughout with cresting and finial at ridge.
- **5/** Glazing by pressure screw system not clip system which can be easily removed leading to added security. A system that also allows glazing with either polycarbonate sheets or double glazing units of varying thickness.
- **6/** All components powdercoated white as standard, bars are coated with Syntha Pulvin or an equivalent powdercoating. This method of finishing is renowned for its excellent weathering properties and is used extensively in commercial architectural situations.
- **7/** Kits can be reduced in size proportionately only a hacksaw and drill needed to do this as cuts are not required to be perfect, they are always covered by cast jointing component.

Information sheet system

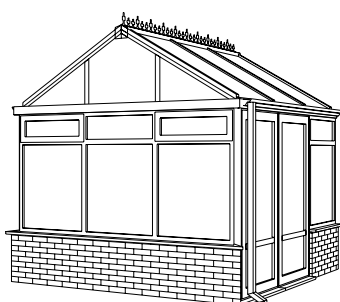
- **LEAN TO STYLE**

This very popular type of conservatory is ideal where maximum use of available floor area is required or where height is restricted for example if the conservatory is built onto a bungalow. All angles involved in the pitch of the roof are provided for by components ensuring that the roof is quickly and easily assembled & pleasing to the eye. This kind of conservatory roof involves greater rafter bar spans than others and it is essential that the rafters are strong enough to meet these needs. The strength designed into the thermally broken aluminium rafter bar therefore is ideally suited to the structural performance.



- **GABLE END STYLE**

An ideal way to enhance a square conservatory by building a ridge either at right angles to the building (or parallel with a box gutter). This style offers a design with extra character over a lean-to unit whilst not going to the expense of an Edwardian style. You may still retain the internal decorative spandrels below the ridge and outside the cresting is still incorporated as it in the more expensive roof.

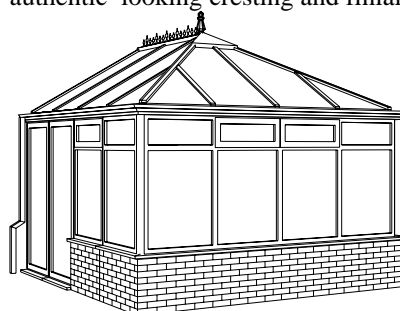


- **P SHAPE AND OTHER STYLES**

Many other styles can be constructed from the system these include a mixture of the previous examples including P shaped units (a lean-to unit linked to either a Victorian or Edwardian unit by means of a valley plate)

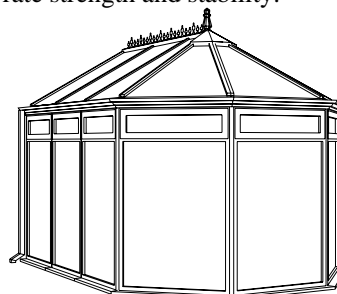
- **TRADITION HIP-ROOF.**

This type of conservatory is used where the requirement is for a square fronted conservatory maximising use of floor area yet still having a traditional Victorian effect pitched roof. As with other styles the construction of the roof is straight forward, all angles and joints being catered for by components which are also used in jointing the hip bar to the rafter thus eliminating complicated mitres. The design and materials used give excellent strength and stability and the roof is completed externally by the authentic looking cresting and finial.



- **VICTORIAN BELL END**

This good looking and traditional style is available with either a 3 or 5 section bell end. The traditional designs of the roof rafters are especially effective and complimentary to the Victorian conservatory. Normally the construction of this roof is complicated but with our unique design all the detail angle jointing involved is taken care of by the use of simple components. This also ensures the quick assembly of the roof on site. The roof ridge incorporates internal decorative spandrels, which are also structural and provide the housing for the ridge bar and rafter bars ensuring the correct angle of pitch. Decorative finial and ridge cresting, cast in aluminium, thus providing authentic external appearance, is included. The design of the roofs and materials used combine to give first rate strength and stability.



installation instructions

- GENERAL.

A ring beam is provided as a continuous member at the window wall top, to support the roof and to provide for lateral rigidity. It is important this secured to the top of the side walls and to the house wall at the rear All joints should be bedded with sealant as they are assembled. First check all parts and identify against parts list with your kit.

Note all components are numbered ensure that at each joint the two component numbers are identical and that it matches its equivalent roof number per parts list in your kit

- VICTORIAN INSTALLATION.

1/ Take the side roof bars from your kit and assemble to the spandrel by location into the cast housing, insert threaded rod through the predrilled holes and tighten dome nut on either side to hold into position, screw through from the underside into base of bar with screws provided.

2/ Assemble the second side of the spandrel to make up a roof truss, repeat for the number of spandrels in your kit.

3/ Assemble the crown to the end of the ridge bar on the floor.

4/ Securely fix the ring beam to the head of the frames by screwing upwards with a no 12 screw through the frames and into the beam. Also ensure that each corner has an angle cleat top and bottom fixed with no 10 screws to hold the corners tightly together. The inside joint is then masked by a chevron which is screwed to the inside face of the ring beam.

5/ Locate the truss you have made onto the top of the ring beam, screw down through the holes in the cast shoe to the top of the beam. Repeat for each truss taking care to locate them correctly. once all the trusses are secured into position take the complete ridge assembly and locate across the tops of the trusses into the housing in the spandrel casting.

6/ Centralise the trusses to the marks along the ridge bar and screw down through the casting to the bar, all holes are predrilled.

7/ Spacing blocks are fixed to all bars going into the crown. Release the dome nut from the underside roof bars at the top end. Holding the threaded rod from which the nut was removed pass the rod through the holes in the crown plate and then apply the dome nut onto the rod on the underside of plate. Screw the bottom shoe to the ring beam through the hole in the shoe. Repeat for all roof bars around the crown.

8/ Clip the eaves seal carrier including the fin gasket into the front of the ring beam.

- EDWARDIAN

Follow same instructions as a Victorian however put in the jack rafter bars as detailed below.

1/ Put the top end of the jack rafter bar into the connector which is already applied to the diagonal hip bar. Generally jack rafters are from small bar if however it is from large sections tighten the clamp plate nut during this operation. Screw the bottom shoe to the ring beam through the hole in the shoe.

- LEAN-TO.

1/ Fix the ring beam to the front frames as described in the Victorian roof.

2/ Fix wallplate to back of house wall - Fixing should be through back of top cast housing as indicated. Ensure the bar is parallel to and the correct distance from the front
3/ Take each rafter and locate to the correct top cast housing. Pass the threaded rod through housing and bar apply dome nuts on either side. Screw the bottom shoe to the ring beam through the hole in the shoe.

4/ take the end glazings bars and screw down onto the top of the side frames.

glazing instructions

- GENERAL

The general design of the roof system allows glass, polycarbonate or any other glazing medium from a minimum thickness of 6mm up to 35mm maximum to be used. It should be noted however if weights of the glazing medium are excessive, a restriction on the span of the bar may apply. You should check the structural calculations or refer back to Amart. It is also necessary to specify the correct lengths of the glazing cap and ridge cap screws as these vary dependant on the glazing thickness. (glazing screws to suit 16mm polycarbonate are included as standard)

1/ It is recommended that the lead flashing is cut and inserted at a point prior to glazing the roof.

2/ Take the correct glazing top cap for each bar as numbered and ensure they are located adjacent to their correct position. Place two polycarbonate or glass sheets into each aperture adjacent to the back wall. Screw the top cap at the back wall down through predrilled holes into the centre screw groove in the bar below using the M6 machine screws provided.

3/ It pays to dress the lead flashing at this point by reaching across the first two sheets it saves climbing to do it afterwards.

4/ Work your way foreword glazing one extra sheet at a time. You can reach over the current sheet you are fitting to screw down the cap between it and the last sheet. (note it may pay to fit the ridge cap and crests as you go along see 5 below this will save having to climb on the roof afterwards)

5/ Apply the ridge capping using the same method as the glazing top cap but seal over the heads of screws. Next bond the cresting into the channel on the top of the ridge cap. This can be done across the top of the last glazing panel and one panel at a time again removing the need to climb on the roof afterwards.

6/ After the last glazing panel has been fitted it is necessary to gain access onto the roof to fit the crown cover as this has to be cut to the correct height and notched over the glazing bar caps it is easier to do this prior to fitting the last panel. Drill a hole at the centre marked on the top of the cap and than offer it over the threaded rod holding the crown to the ridge. Ensure this is held level by measuring the gap at the back between its underside and the top of the ridge cap you have the amount that has to be cut from the front flange to allow it to drop to its lowest level with the flange tight down to the glazing and the back flange tight down to the top of the ridge cap (note the flange will also need notching around the individual bar caps going to the crown.)

7/ Finally apply the crown cap bedding down onto sealant as necessary over projecting part of threaded rod and hold down by screwing cast finial down same threaded rod. It is extremely important that the sealant is sufficient to effect a watertight seal between the end of the ridge cap and the crown cover as well as preventing water capilarying back under the crown cap.

8/ There are also covers provided to go over the joint between the jack rafters and main hip rafter. These are screwed through from the top into the main bar and cover the joints between the top caps at this point. Again these should be bedded in a suitable sealant to prevent water capilarying under them.

- LEANTO ROOF UNITS ONLY

The general principles apply to these roofs as the glazing of Victorian and Edwardian described above. The only special item is an end trim which fits into the end bar on the outside in the base gasket groove and laps down the end side frame This balances the 16mm polycarbonate generally used, if a thicker glazing medium is employed a packing strip must be inserted to make up the difference (not supplied with roof).

specification sheet

• MATERIALS

Extrusions :- all are to our own individual design incorporating decorative mouldings wherever possible. Extruded from 6063 T6 Alloy and are powder coated using high quality powdercoating finish(Ral 9910 Hipca White or Ral 8912 Havanna Brown) as standard. (Special colours are available)

PVC Extrusions :- are U.V. stabilised where exposed. The top cap is supplied in brown or white plastic.

Castings :- are manufactured by gravity die castings or sand patterns using LH27 metal. They are powder coated with a proprietary industrial powder applied to the manufacturer's recommendations.

Fastenings :- are of normal steel all are standard nuts, bolts or screws and are zinc plated to appropriate British Standards.

Polycarbonate :- all is 25mm triple wall either clear, bronze or opal. All supplied with protective film (please ensure the correct side is used externally as indicated on the film). All are cut to size with sealing tape to open sides and top, breather tape to bottom only. (multi Wall 32mm sheets are also available at an Extra cost quoted individually)

Glass:- is available in various optional configurations all have stepped bottom edge. The roof when supplied with glass included has an insert to the ring beam at the bottom to retain the edge seal of the double glazing units. If the customer supplies his own glass templates for glass shapes can be supplied (This is the only way sizes will be given, availability to be Friday prior to delivery week quoted.)

Gutter :- is proprietary Marley Classic (or similar alternative) using concealed fascia brackets which screw to the ring beam allowing for a small fall. (Aluminium gutter will be used when special colours are specified)

• COMPONENTS

comply with the material specifications as indicated. Castings are supplied in box quantities all wrapped in polythene within the carton. Extrusions are supplied in complete lengths as indicated we will not cut or supply part lengths. Prices quoted are per item or per metre

• SUNDRY ITEMS.

We fabricate all sundry items such as box gutters, portal frames vents etc. to individual specifications. The above and other such sundries are priced on an individual basis P.O.A. Please note box gutters need cladding internally with Celuka which is not included in our price. Portal frames are powder coated where time and size allow otherwise they also need cladding with celuka which again is not included in our price. Other smaller items will be powder coated.

specification sheet

ROOF UNITS TO SIZE.

Roof units are manufactured to individual size requirements and are estimated on the next size up on our pricing matrix. These roofs will have been prepared in full and erected on our manufacturing deck level and plumb. The pre-assembled roof is fully checked before being disassembled, when all bolts are inserted back into the components before they are packed. All bars, ring beam and ridge are pre-numbered clockwise starting at the right hand back wall from outside to allow easy location on site. Bar spacings are based on a maximum of one metre centres i.e.. up to 2 metres two spaces, up to 3 metres three spaces maximum, if more spaces than this are required extra bars will be charged to achieve this. Please note on the large bar matrix jack rafters on Edwardians and will be supplied as small B11 bar as will the centre facet bars on Victorians (these are included when the overall width of the Victorian exceeds 3500mm) The roof bars will all be individually wrapped in polythene including the bottom shoes. All other components will be boxed separately. Polycarbonate is supplied to specification above including edge closers, gutter sufficient to cover the external ring beam perimeter including joints, angles, stop ends and one running outlet is also included. **No downpipe** or associated fittings will be sent unless ordered as extras on an individual component basis.

Note:- please note if dentil moulding or a valley is part of the roof supply an extra add on should be incorporated on to the top of the normal side frames, this should be at least 45mm to allow for the gutter / mould to miss any opening vents.

specification sheet

- **DELIVERY.**

All mainland deliveries over £6000 net will be free of charge, under £6000 a charge will be made as will any deliveries made by carrier. Our standard delivery times are as follows :-

Standard Roof units made to size :- 15 working days approx.

Special Roof units made to size :- 25 working days approx

Components :- 5 - 10 working days (small quantities only can be despatched quicker by carrier if required).

Collections: - must be pre arranged between the hours of 10.00am and 1.00pm. We do not advise collections as we cannot guarantee time of completion of work on any specific day

These times are indicative and do not form part of our contract/conditions of Sale.

- **PRICES.**

As list but subject to agreed discount which is specified in our letter of offer.

- **TERMS**

See our terms and conditions of sale which apply to goods supplied against all prices within this list. Please note COD customers must have their cheque at our offices by the Monday of the week of delivery the order cannot be despatched until it is received (As we use carriers we cannot collect the cheque when delivering.)

- **ORDERING**

All orders must be received in writing prior to despatch of components Roof units **must** be confirmed on our own order form which **must** be signed and returned to us **prior** to any manufacture commencing.