

global  
conservatory roof



The UK's market-leading aluminium and PVC-U conservatory roof system,  
designed without compromise and tested to the highest standards

**Conservatory roofs**

 synseal®

## A proven roof design – independently tested



Snow load capability > 2.7m

Wind speed resistance > 250 kph

The Global roof has been exhaustively tested and the system has received British Board of Agrément (BBA) accreditation. A standard Georgian conservatory was independently assessed by façade-testing specialists Wintech Engineering to prove that Global can withstand the most extreme weather conditions, with market-leading performance results that far exceeded expectations.

### BBA – test achievements

- Water penetration test at 300 Pascals: PASSED (equivalent to a Force 9 severe gale)  
*24 hour water penetration testing was carried out, during which the roof was deluged with 113 inches of water, more than twice the average annual British rainfall.*
- Uplift test at 900 Pascals: PASSED (equivalent to wind speeds at 85 miles per hour)
- Load test of 120kg per m<sup>2</sup>: PASSED (equivalent weight of 4 feet of snow per m<sup>2</sup>)

### Wintech Engineering – test achievements

*Wind resistance testing using a modified DC6 aircraft engine and applying negative pressures to simulate increasing wind speeds.*

- Wind speed of 90 miles per hour: PASSED (exceeding the UK's great storm of 1987)
- Wind speed of 130 miles per hour: PASSED (new record for a UK-manufactured conservatory)
- Wind speed of 160 miles per hour: PASSED (equivalent to a devastating Force 17 hurricane)

*Structural integrity testing was then carried out on the same conservatory, after wind testing, with Wintech applying negative pressures to simulate increasing snow loadings.*

- Structural integrity testing: PASSED (equivalent to 9 feet of snow per m<sup>2</sup>)



The UK's No 1 best-selling conservatory roof system



The Global roof system is ideal for projects of all sizes, from standard design conservatories to large bespoke structures

Global roof took the UK's No 1 position in 2005 and has been there ever since, accounting for at least 1 in 4 of every conservatory roof installed today. This well-engineered roof has been designed to be easy to specify, easy to fabricate, easy to fit and easy to maintain. That's what makes the Global roof the ideal choice for conservatory projects worldwide.

**Designed without compromise**

Using state-of-the-art design software, Global conservatory roofing solutions can be individually scoped to provide flexible and creative living spaces. All classical styles of conservatory can be designed using the proven Global roof along with more contemporary styled designs. Global Summer is an innovative fascia cladding and internal soffit system which enables an authentic orangery look to be achieved, at an attractive price point.



Fully tested and accredited



Large Edwardian style



Low maintenance glazing options

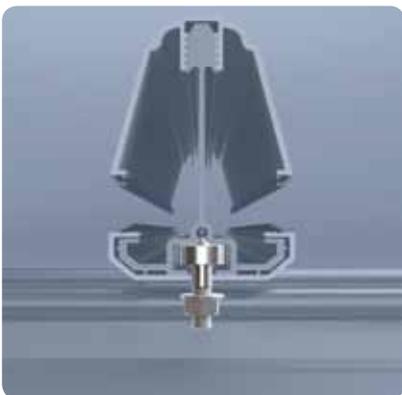


Woodgrain on White T-shape

## Global roof design features



### Single bolt system



Unique single fixing bolts are fastened internally for easy and quick installation. This system is totally watertight, as there is no need to drill and penetrate the main aluminium rafter meaning there are no holes for water to ingress through. The single fixing bolt is also fitted from below, making it easier to align and faster to fit than top-fitted conservatory roof systems.

### Aluminium top caps



Global roof top cappings are available in aluminium and supplied in woodgrain foiled or painted finishes to specification, so they will not warp or distort under extreme heat or split under extreme cold.

### Aluminium roof option



Global Plus is an optional specification which delivers a premium quality aluminium roof design. All external roofing components are manufactured from sturdy aluminium, with the exception of guttering and downpipes which use the standard Global PVC-U system for UK project applications.

global<sup>plus</sup>



#### High strength rafters

Rafter bars are designed for increased loads so there's no need to compromise on specifications for structural design or weather performance.



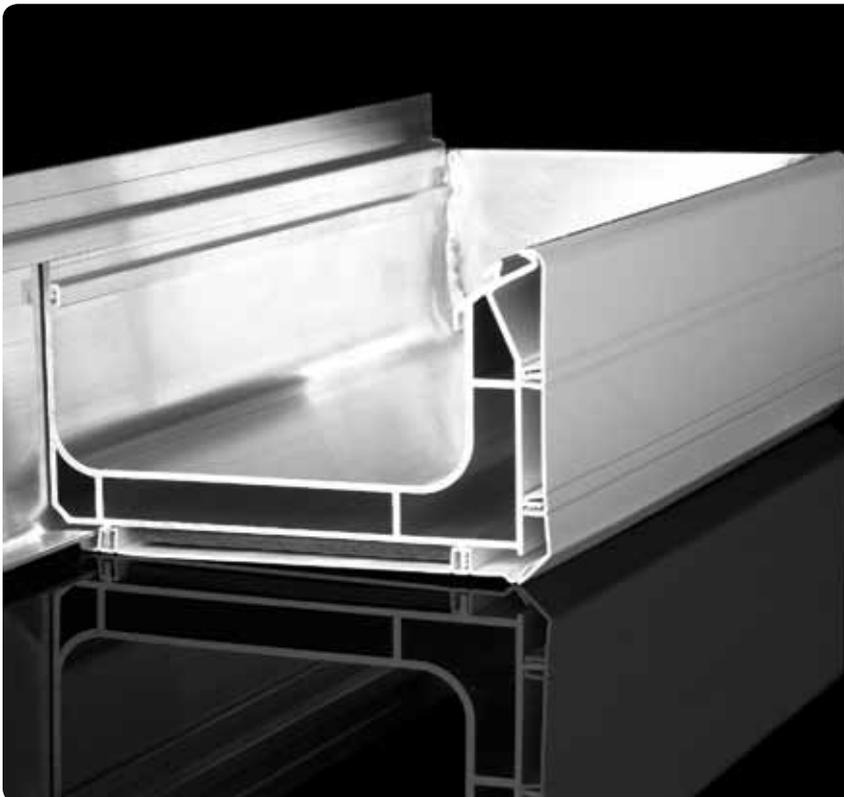
#### Elegant tie bar

Cross-bracing internal tie bars may be required to ensure roof stability, according to specification. Global roof tie bars are elegantly designed and do not significantly intrude into the head room of the conservatory.



#### End caps

End caps have a shoulder around the visible face for a more attractive appearance and have been designed with built-in drainage to relieve any trapped water.



#### Insulated box gutter

Global's innovative box gutter is twin skinned and insulated to reduce condensation. A special fixing plate ensures that, unlike other roofs, no holes are drilled in the gutter – so no leaks can occur and its large 205mm wide design accommodates extreme rainwater conditions. The double skin construction also increases strength and reduces sound pollution through the gutter. With no internal support brackets required, there are no potential traps for leaves or debris. Dedicated side and under claddings ensure a perfect match to the roof. Double box gutters are also available for higher capacity specifications and provide a solution for 'back-to-back' adjacent roof installations.



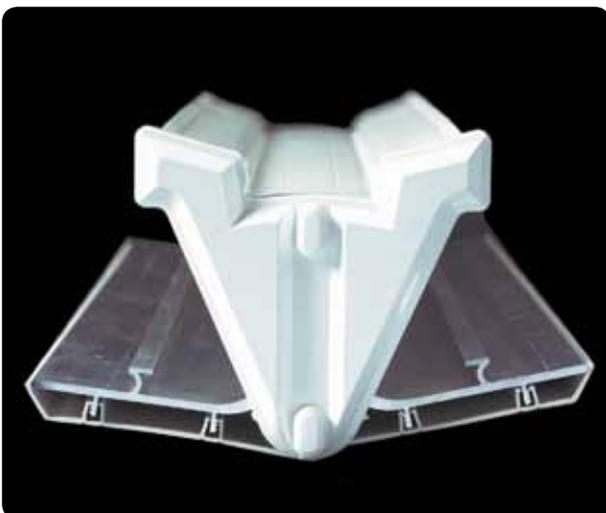
#### **Tie bolt**

When tightened, the precision engineered security locking bolt locates firmly into a dedicated channel and eradicates movement between the bolt and rafter, for a strong and rigid anti-slip joint connection.



#### **Low level gasket system**

Global roof features concealed low level gaskets, as no end user would wish to look up at their conservatory roof and see thick black gaskets around every glazed panel.



#### **Variable valley**

The flexible valley is designed to suit varying pitches and angles, and is cloaked internally and externally to give an attractive aesthetically pleasing appearance. Angled roof pitches varying from 5° to 35° can be accommodated.



#### **Perfect lead flashing**

The starter bar is designed to leave a perfect lead flashing line seamlessly connecting the house and the conservatory. The lead dresses into a built-in soaker forming a watertight seal and no lead needs to be dressed over the top cap, therefore preventing any unsightly lead lines or staining.

### Range of ridges

Global roof offers 3 alternative ridge details, to ensure the right ridge can be specified for each project. These practical ridge designs are easy to fabricate and install, with no risk of subsequent draughts or water ingress.



### Chamfered or contoured eaves beam cladding

Eaves beam internal claddings are designed to be easily removed for access and available in either chamfered or contoured ovolo profile, to suit the style of the conservatory's windows and doors.



## A style for every conservatory project

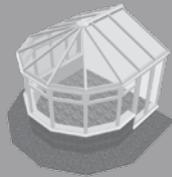
Individual design requirements will differ, so Synseal offers a range of conservatory roof styles to suit each installation. From simple lean-to designs perfect for installations with restricted height, to large bespoke designs with lantern tops.



### Victorian

A bay fronted duo-pitched roof with a central ridge, normally with three or five facets at the front.

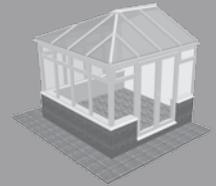
*Available in sizes up to 6.5m wide.*



### Georgian/Edwardian

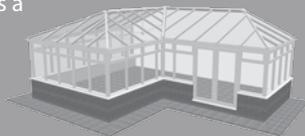
A square fronted duo-pitch roof with a central ridge. A style that maximises floor space.

*Available in sizes up to 6.3m wide.*



### P-shaped

A combination shaped roof usually constructed from a lean-to section at the side of a Victorian/Edwardian shaped roof. This creates a versatile living space.



### Gable

Gable ended roofs are a variant of the Edwardian style roof and consist of duo-pitched sides with a flat faced frontage. These can include the use of a decorative designed gable frame.



## Sizes

The Global roof system is capable of wide-spans due to its robust design. Alternatively, Synseal's SkySpace portal frame solutions enable super-sized bespoke designs with wide-spans to be constructed easily.



### Lean-to

A conservatory with a mono pitched roof. The pitch of the roof can be varied making it a versatile option. Pitches as low as 2.5° can be accommodated by the Global 600 lean-to-roof.



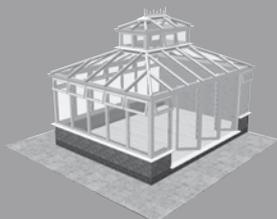
### T-shaped

Another combination roof style. T-shaped conservatories are aesthetically balanced and create a versatile living space.



### Lantern

Distinguished by two tiered roofs, the Lantern design adds light, height, space and grandeur.



### Custom

Global conservatory roofs are bespoke manufactured and Synseal's technical and design teams are on hand to evaluate design options and help find the best possible solution.

## Wide-span designs

**System design enhancements allow Global roofs incorporating glass or polycarbonate glazing with wide spans of over 6m. The robust design of the Global roof system makes it the perfect solution for large conservatory projects.**

Long transom and hip rafters can feature additional pre-fitted bolsters fixed to the underside of the bars for added strength.

To meet consumer demand, the footprints of conservatory living spaces in both Georgian and Victorian style can now be extended to offer wide-span designs.



### Roofs up to 6.5m wide

After extensive testing by CMT, an independent UCAS approved company, the Synseal eaves beam has been tested to 2 tons and will support a Georgian roof up to 6.3m and a Victorian roof up to 6.5m wide.

### Openings up to 5m wide

To provide the wider openings that increasingly popular bi-fold doors require, Synseal have developed a bi-fold door support, which combined with their heavy duty eaves beam can accommodate doors up to 5m wide.

### Heavy duty eaves beam

Bi-fold doors can open up virtually the whole side of a conservatory to provide added space and flexible access to adjacent gardens. Synseal has created the perfect bi-fold door solution that ensures their effective operation in use, featuring a heavy duty eaves beam that will support an opening of up to 5m in width (depending on the style of conservatory and the location of the opening).



### Heavy duty eaves beam at-a-glance

- Designed for ease of installation and flexibility of use, available in a choice of two profile lengths
- Manufactured from aluminium with weather resistant PVC-U claddings, available in a range of colours
- The most cost-efficient support solution available, eliminating the need for expensive steel structures or the unnecessary expense of continuing the wide span support around all of the conservatory elevations, as frame height can be simply altered by 50mm on the remaining elevations to allow for the height of the additional bi-fold door support

## SkySpace portal frames



*Global Summer orangery style large conservatory using a SkySpace portal frame structure*

**For super-sized conservatories and architectural wide-span glazed structures, SkySpace aluminium portal frames can be custom designed to carry Global roof assemblies and meet specific project requirements.**

Portal frame aluminium profiles bolt together and include purlins and welded angled trusses, as required. Bespoke SkySpace portal frames are test-assembled on the factory floor to check precision of manufacture, prior to despatch.

This approach suits projects sized from 30m<sup>2</sup> to 2000m<sup>2</sup> and unsupported clear spans of up to 35m can be achieved using the SkySpace system.

SkySpace aluminium portal frames are an ideal specification for swimming pool enclosures, able to easily cope with exposure to chlorine and constant high humidity levels.



*Eaves purlin - exploded view*



*Hotel leisure centre*



*Banqueting atrium*



*Bespoke structures for unique spaces*

Installations



## Coloured roofs to suit each project

**Conservatory roofs can be supplied in traditional woodgrain and painted effect foils in a range of popular, eye-catching colours.**

Different foil finishes can also be applied to inside and outside conservatory faces, as required – for example, an eye-catching external colour combined with White internally is a typical specification.



Woodgrain White



Cherrywood



Golden Oak



Mahogany



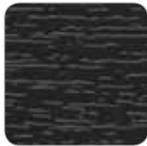
Cream



Chartwell Green



Grey



Black/Brown

The colours shown are designed as a guide to the Woodgrain and Artisan Woodgrain Collection. Before making your final decision, please ensure you have seen a foil swatch.



Global Plus aluminium roof components are available in White, Brown and Caramel powder coated finishes and also mill finish, for powder coating in a RAL colour according to specification before supply.

### Finials and crestings

One of the most visually striking and classical design aspects of a conservatory are the finials and crestings. The interlocking PVC-U sections of the Global roof crestings incorporate an interlock to ensure that once connected they remain in a perfect line. A range of decorative finial designs are available in suited colours to match the roof.



Ball finial and Shield cresting



Global finial & Global cresting



Stud finial and non decorative cresting



Shield finial and cresting



Global Plus aluminium finial and cresting

## Glazing options

### Sealed IGU products, custom-made to specification

The need to control solar glare in summer and minimise heat loss in winter calls for the selection of high performance toughened and annealed roof glass.

24mm double glazing is a typical roof glass specification, comprised of either 4:16:4 or 4:14:6.4 units, as the weight of these units is easily handled by the roof structure.

globalglass®

A range of roof glass solutions is available from Global Glass, including solar control, low maintenance, Low E and gas filled options.

### Solar control glass

Solar coated glass is commonly used on conservatory roofs to help prevent the build-up of heat during the hot summer months. The coating on the glass helps reflect heat from the sun back to the outside atmosphere, giving a more comfortable and useable living space. The glass is available in a range of tints which allows the glass to absorb more heat, whilst the coating reflects heat back to the outside.

### Low maintenance glass

A revolutionary low maintenance coating is applied to the glass as part of the manufacturing process, which means that it is fused to the surface of the glass and therefore lasts the lifetime of the pane. The coating uses the rain and natural light from the sun to efficiently combat the dirt and grime that accumulates on the outside of the window. By reducing the need for manual cleaning, low maintenance glass provides an ideal and safe solution for keeping hard to reach or hazardous glazed surfaces clean.



Normal glass



Low maintenance glass



Double glazed units with spacer bar options

### Low E glass

Low E glass has a microscopic metal coating which reflects heat back into the room. DG units incorporating this specially coated glass offer up to 33% more insulation than conventional insulated glass units.

### Polycarbonate

Polycarbonate is a lightweight insulating glazing product manufactured from damage resistant material and available in a range of colours. Added protection provides resistance against the effects of UV weathering.

Polycarbonate is inherently strong and provides both economy and practicality - being sold in flexible sheets which are supplied cut to size and can even be trimmed on site if necessary. Today mainly 35mm and some 25mm thick polycarbonate is used for conservatory roofing, but the trend is that more consumers prefer the quality and visual clarity of high-performance glass.



Bronze



Silver Opal



Clear



Opal

CELSIUS™  
PERFORMANCE GLASS



Global Summer interior finished in Chartwell Green with Celsius Elite high performance glass

Celsius Performance Glass utilises a Low E and solar control combination coating, with an Argon filled cavity, to control the amount of visible light, UV and heat that pass through the glazed unit. Easy Clean technology has also been added to reduce maintenance requirements.

	Standard Glass	25mm Polycarbonate	CELSIUS One™ PERFORMANCE GLASS	CELSIUS Elite™ PERFORMANCE GLASS	CELSIUS Clear™ PERFORMANCE GLASS
U-value	2.8	1.6	1.0	0.9	1.0
Solar factor	75%	55%	22%	22%	42%
Visible light transmission	80%	68%	38%	34%	61%
Heat reflection	25%	45%	78%	78%	58%
UV protection	25%	45% (bronze)	94%	94%	73%
Toughened to BS EN 12150-1	✓	✗	✓	✓	✓
Manufactured to BS EN 1279-2	✓	✗	✓	✓	✓
10 year warranty against seal failure	✓	✗	✓	✓	✓
Easy clean coating	✗	✗	✓	✓	✓
Cavity fill	Air	✗	Argon	Argon	Argon
Tinted	✗	✗	Blue tint	Blue tint	Neutral tint

The at-a-glance comparison figures shown are for guidance purposes only. Slight variations may occur due to glass specification, time of year, manufacturing tolerance, point of manufacture and type of instrumentation used.

**Solar Factor:** The percentage of total energy (heat) from the sun which is able to pass through the glass.

**Visible Light Transmission:** The percentage of visible light which is directly transmitted through the glass.

**UV Protection:** The percentage of damaging UV rays from the sun which is unable to pass through the glass.

**Global Summer is a design enhancement of the proven Global conservatory roof that provides a cost-effective orangery solution. Global Summer delivers the distinguished look of a traditional orangery without the need for expensive parapet walls, leak prone flat roofs or the added engineering complexity of a lantern roof.**

As simple to install as the rest of the Global range, Global Summer uses high-quality aluminium decorative gutter fascias and internal pelmet pods that hook onto the eaves beam to create a soffit feature detail. These unique pelmet pods provide a rigid former for plastering to and allow downlighters or speakers to be incorporated into the internal soffit for added consumer appeal.

### Two fitting options

Global Summer has two main fitting options - raised line and low line - which alters the height that the decorative gutter fascia sits above the conservatory windows.



### Raised line installation

Raised line installations use the orangery eaves beam extender beneath a standard eaves beam to lift the roof 170mm over the frames and provide increased space between the pelmet pod internal soffit and the roof. This increased height adds grandeur to Global Summer installations and delivers a more authentic orangery look.



### Low line installation

Low line installations use a bi-fold door support underneath the heavy duty eaves beam to keep the pelmet pod internal soffit in line with the conservatory's gutter. Low line is ideal when the overall conservatory height needs to be contained, or to fit in with a more compact property's proportions.



*T-shaped Chartwell Green Global Summer installation with gable-end mid section*



### Decorative pilasters

Decorative pilasters are an eye-catching feature which help to evoke the aesthetics of classical orangery design. Manufactured in GRP and available in White, Blu White, Cream or Chartwell Green painted finishes, the pilasters perfectly complement the roof, include self-draining flutes and are a beautiful addition to any raised line Global Summer installation.



Designed to enable conservatory installers to offer an attractive and easy to install orangery solution - Global Summer provides stylish aesthetic appeal with additional practical benefits, such as incorporating downlighters into the pelmet section which add value and enhance the Global conservatory roof system.

# Technical information

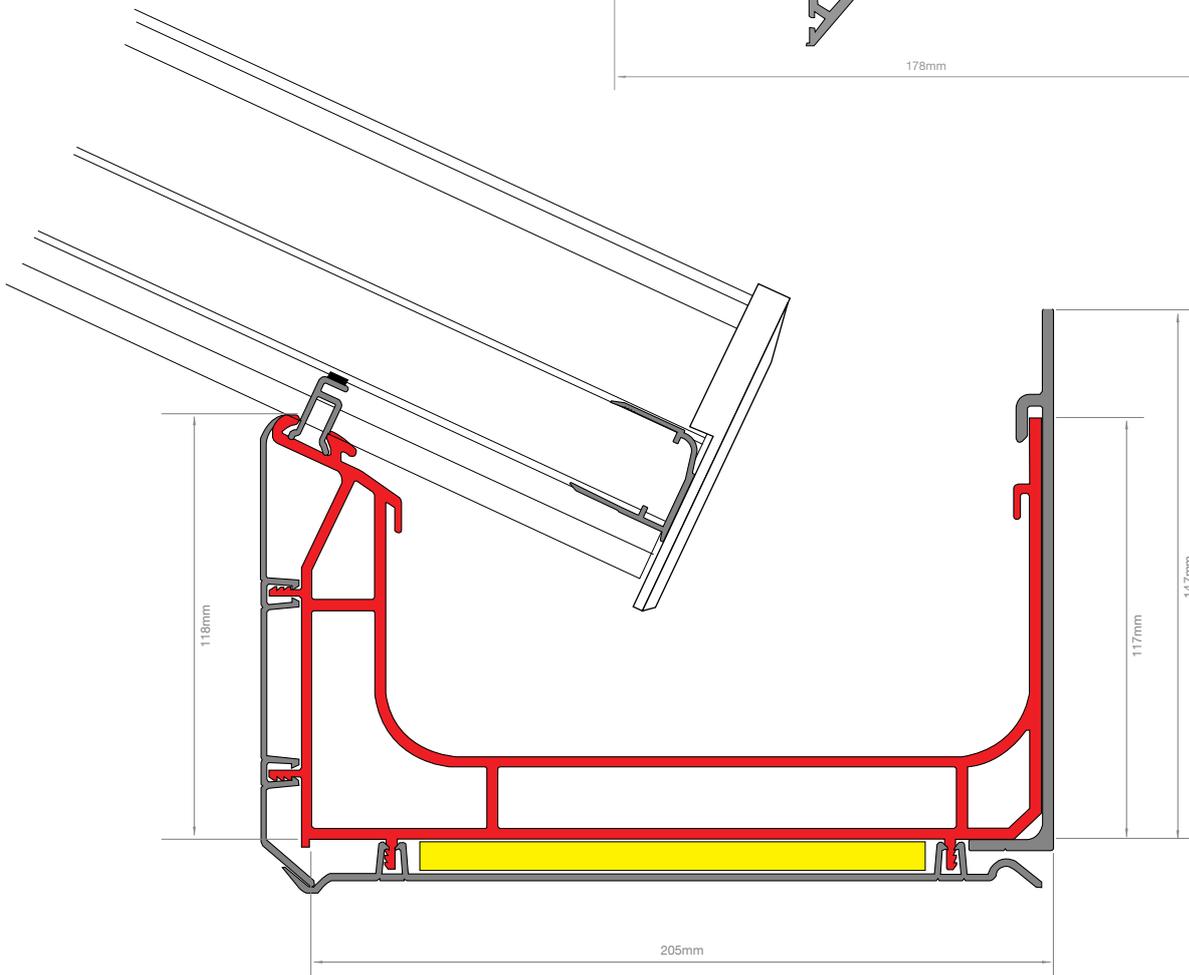
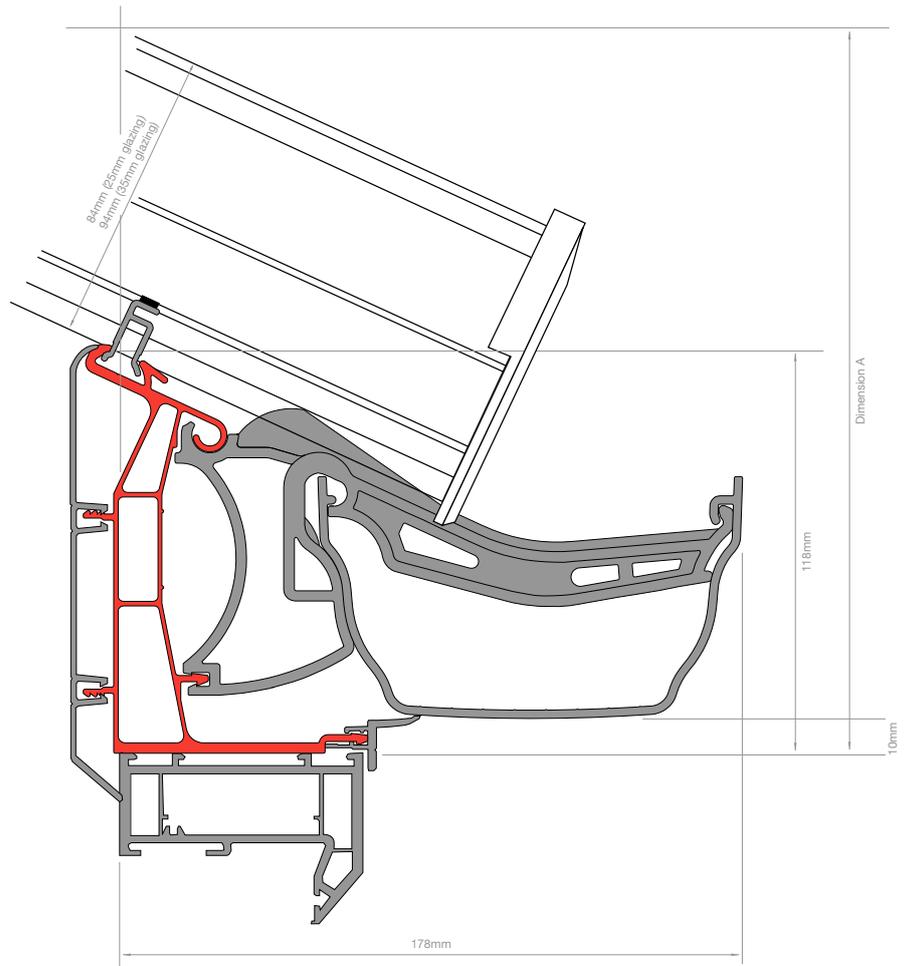
## Eaves beam cross section

### 24/25mm glazing

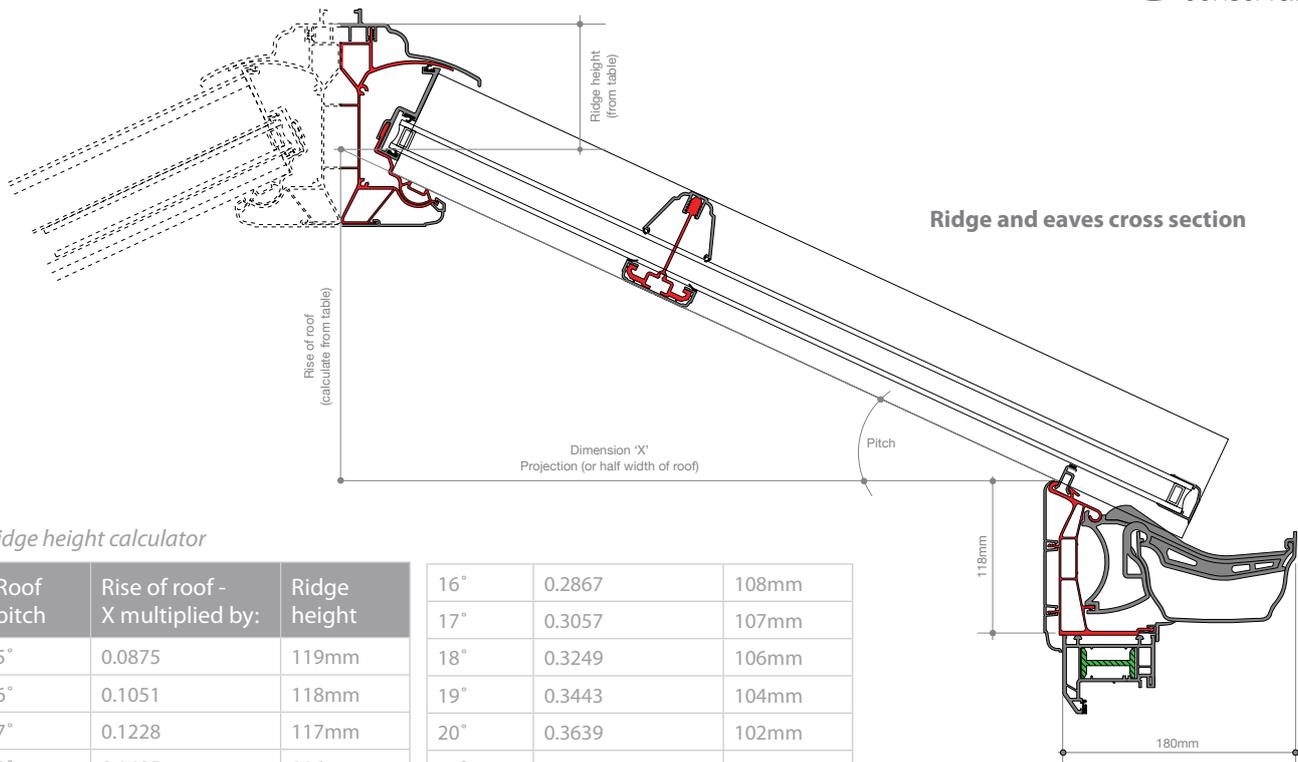
Roof pitch	Dimension A
5°	199mm
15°	202mm
25°	208mm
35°	218mm

### 35mm glazing

Roof pitch	Dimension A
5°	208mm
15°	212mm
25°	219mm
35°	230mm



Box gutter cross section



Ridge height calculator

Roof pitch	Rise of roof - X multiplied by:	Ridge height
5°	0.0875	119mm
6°	0.1051	118mm
7°	0.1228	117mm
8°	0.1405	116mm
9°	0.1584	115mm
10°	0.1763	114mm
11°	0.1944	113mm
12°	0.2125	112mm
13°	0.2309	111mm
14°	0.2493	110mm
15°	0.2679	109mm

16°	0.2867	108mm
17°	0.3057	107mm
18°	0.3249	106mm
19°	0.3443	104mm
20°	0.3639	102mm
21°	0.3839	101mm
22°	0.4041	99mm
23°	0.4245	98mm
24°	0.4452	97mm
25°	0.4663	96mm
26°	0.4877	95mm
27°	0.5095	94mm
28°	0.5317	92mm

29°	0.5543	90mm
30°	0.5773	88mm
31°	0.6009	87mm
32°	0.6249	86mm
33°	0.6494	85mm
34°	0.6745	84mm
35°	0.7002	82mm

25mm rafter cross sections

**XER1 Light End Rafter**  
XERC25 Top Cap  
XBC1 Bottom Cap  
XERC1 Side Cap

**XJR1 Jack Rafter**  
XJC25 Top Cap  
XBC3 Bottom Cap

**XT2 Medium Transom Rafter**  
XRC25 Top Cap  
XBC1 Bottom Cap

**XER3 Wall Rafter**  
XERC25 Top Cap  
XBC1 Bottom Cap

**XVH3 Heavy Victorian Hip Rafter**  
XRC25 Top Cap  
XBC1 Bottom Cap

**XGH1 Light Georgian Hip Rafter**  
XGC25 Top Cap  
XBC1 Bottom Cap

35mm rafter cross sections

**X35ER2 Medium End Rafter**  
XERC25 Top Cap  
XBC3 Bottom Cap  
XERC2 Side Cap

**XT1 Jack Rafter**  
XJC25 Top Cap  
XBC1 Bottom Cap

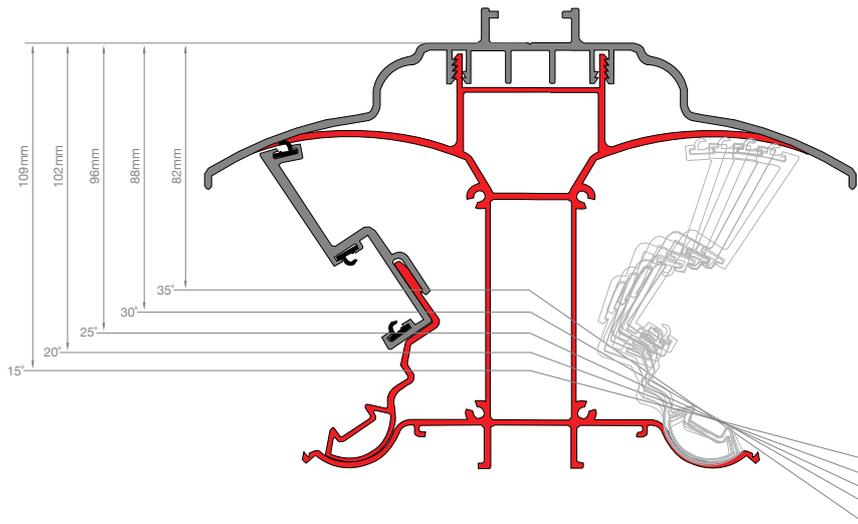
**X35T1 Light Transom Rafter**  
XRC25 Top Cap  
XBC3 Bottom Cap

**X35ER3 Wall Rafter**  
XERC25 Top Cap  
XBC1 Bottom Cap

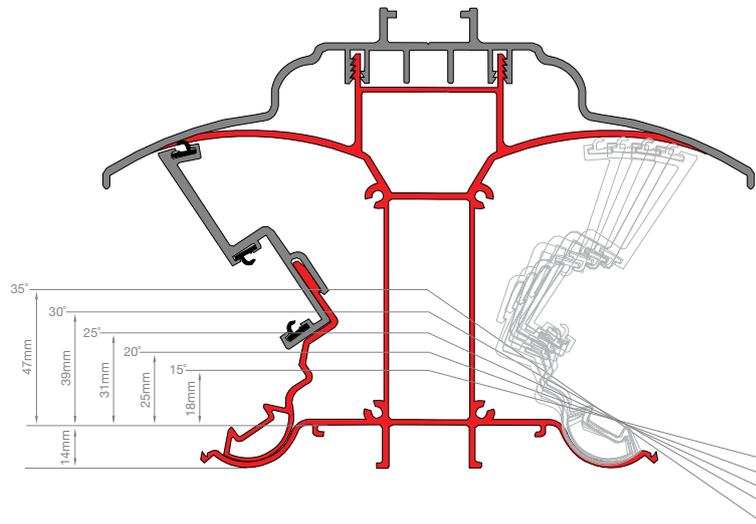
**X35VH1 Light Victorian Hip Rafter**  
XRC25 Top Cap  
XBC1 Bottom Cap

**X35GH2 Medium Georgian Hip Rafter**  
XGC25 Top Cap  
XBC1 Bottom Cap

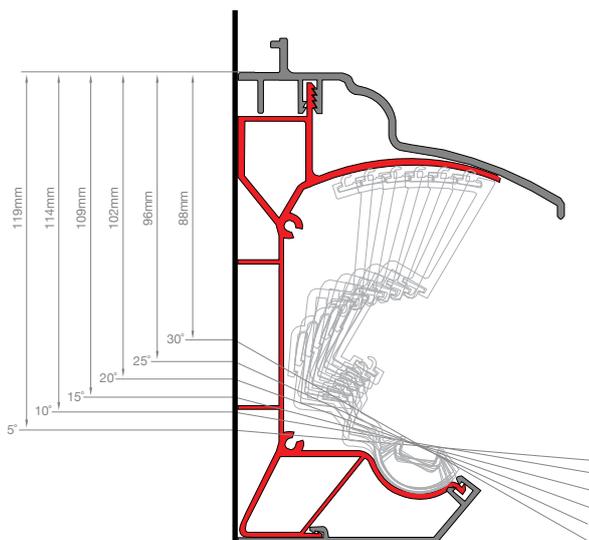
# Technical information



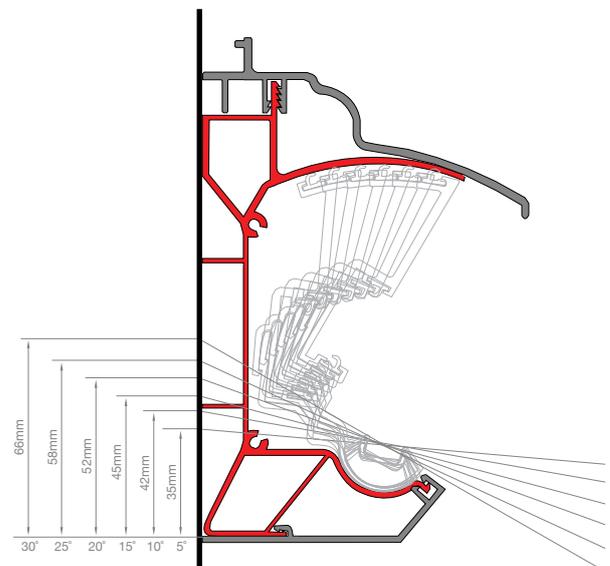
**Top of ridge height based on wire frame**



**Underside of ridge height based on wire frame**



**Top of wallplate height based on wire frame**



**Underside of wallplate height based on wire frame**

### Gutter

<b>XYGUT2</b> Eaves/Standard Gutter ● ○ ● ●	<b>XYGIT2</b> Gutter Infill Trim for XYGUT2 ● ○ ● ●	<b>XGC5</b> Eaves Gutter Bracket ● ○ ● ●	<b>XYR910</b> Screwfix Gutter Bracket ● ○ ● ●	<b>XYR908</b> Gutter Union ● ○ ● ●	<b>XYR935</b> 90° External Bend ● ○ ● ●	<b>XYR945</b> 90° Internal Bend ● ○ ● ●	
<b>XYRBGT</b> Gutter 'T' Piece ● ○ ● ●	<b>XYRSY1</b> Running Outlet ● ○ ● ●	<b>XYRSY2</b> External Stop End (flat ended) - use with XYR400 to create stop end outlet ● ○ ● ●	<b>XC9077BLK</b> Gutter Spigot ● ○ ● ●	<b>XYR902</b> Internal Stop End ● ○ ● ●	<b>XYR913</b> External Stop End ● ○ ● ●	<b>XYR937</b> 135° External Bend ● ○ ● ●	<b>XYR947</b> 135° Internal Bend ● ○ ● ●
<b>XYR999</b> 150° External Bend ● ○ ● ●	<b>XYDP1</b> Downpipe ● ○ ● ●	<b>XYR17</b> Downpipe Coupler ● ○ ● ●	<b>XYR19</b> Downpipe Bracket ● ○ ● ●	<b>XYR24</b> Variable Downpipe Bend ● ○ ● ●	<b>XYR20</b> 112.5° Downpipe Bend <b>XYR577</b> 92.5° Downpipe Bend ● ○ ● ●	<b>XYR21</b> Downpipe Shoe ● ○ ● ●	<b>XGA2L</b> Box Gutter Adaptor Left Hand ● ○ ● ● <b>XGA2R</b> Box Gutter Adaptor Right Hand ● ○ ● ●

### Eaves Beam

<b>XEB6</b> Shield Eaves Beam	<b>XBGJ2</b> Eaves Box Gutter Joiner	<b>XEEJ2</b> Eaves Beam to Beam Joiner	<b>XGSP2</b> Gable Support Platform	<b>XPS1</b> Glazing Support Section ● ○ ● ●	
<b>XUGT135</b> 135° Under Gutter Trim ● ○ ● ●	<b>XEB6</b> Eaves Beam End Cap (pair) ● ○ ● ●	<b>XEB6-AL</b> Eaves Beam End Cap (pair) ● ● △	<b>XGIW1</b> Gable Infill Wedge Suitable for 25°-35° ● ○ ● ●	<b>XPS2</b> Glazing Support Trim Adaptor ● ○ ● ●	<b>XPS3</b> Glazing Support Trim Adaptor (for Georgian Hips) ● ○ ● ●
<b>XUGT90</b> 90° Under Gutter Trim ● ○ ● ●	<b>XUGT180</b> 180° Under Gutter Trim ● ○ ● ●	<b>XEBC5</b> Gable Support Clad ● ○ ● ●	<b>XPS4</b> Glazing Support Trim Adaptor (to suit SynerJy) ● ○ ● ●	<b>XPS5</b> Glazing Support Trim Adaptor (for Georgian Hips to suit SynerJy) ● ○ ● ●	
<b>XSC1-90</b> 90° External Eaves Beam to Eaves Beam Bracket (to be used with XSC2-90)	<b>XSC1-135</b> 135° External Eaves Beam to Eaves Beam Bracket (to be used with XSC2-150)	<b>XSC1-150</b> 150° External Eaves Beam to Eaves Beam Bracket (to be used with XSC2-150)	<b>XSC2-90</b> 90° Internal Eaves Beam to Eaves Beam Bracket (to be used with XSC1-90)	<b>XSC2-135</b> 135° Internal Eaves Beam to Eaves Beam Bracket (to be used with XSC1-135)	<b>XSC2-150</b> 150° Internal Eaves Beam to Eaves Beam Bracket (to be used with XSC1-150)

### Bi-fold

<b>XEB7HD</b> Heavy Duty Eaves Beam
<b>XBFDS1</b> Bi-fold Door Support
<b>3FC30</b> Cover for XBFDS1 ● ○ ● ● ●
<b>XBFDSF</b> Bi-fold Door Support Foam (50m roll)

All components are available in different colours - the codes shown are for 'White'.

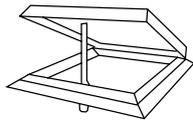
**Colour key:** ■ Plastic ■ Aluminium ■ Rubber ■ Steel ■ Other ■ Mixed component

**Component colours available:** ● Mahogany ● Brown ● Caramel ● Cherrywood ● Golden Oak ● Black (B - only foam components)

dc = dual colour ○ White (no additional suffix) ● Blu White (BLU) △ Gloss Finish White Aluminium (GWA)

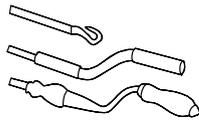
# Component chart

## Roof Ancillaries



**XR25**  
Roof Vent (25mm glazing)

**XR35**  
Roof Vent (35mm glazing)  
● ○ ● ● ● dc



**XRVP2/XRVP3**  
Brass Roof Vent Pole/Chrome Roof Vent Pole



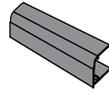
**XGWP1**  
Conservatory Glazing Wedge Packers for Glass Roofs



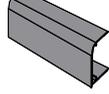
**XRVC3**  
Climate Control Unit (includes rain sensor)  
○ ●



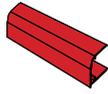
**XTB5**  
5-Way Tie Bar Assembly



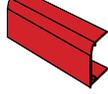
**XSPEC25**  
Sculptured Roof Sheet End Closer (to suit 25mm)  
● ○ ● ● ●



**XSPEC35**  
Sculptured Roof Sheet End Closer (to suit 35mm)  
● ○ ● ● ●



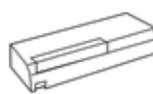
**XSPEC25-AL**  
Sculptured Roof Sheet End Closer (to suit 25mm)  
● ○ ● ● ●



**XSPEC35-AL**  
Sculptured Roof Sheet End Closer (to suit 35mm)  
● ○ ● ● ●



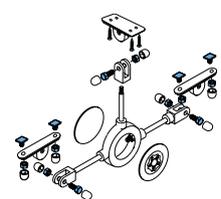
**XMS**  
24mm Muntin Bar  
● ○ ● ● ● dc



**XRVE1**  
Roof Vent Motor (requires item XRVC3 or XRVS1)  
○ ●



**XRVS1**  
Roof Vent Motor Switch (white only)



**XTB1**  
3-Way Tie Bar Assembly (also in chrome & brass)  
● ○ ● ● ●



**XMS-AL**  
25mm Muntin Bar



**XMUNT35P**  
25mm to 35mm Muntin Bar Conversion Strip



**XJRK1**  
Jack Rafter to Hip Connecting Kit



**XM825P**  
Rafter to Eaves Beam Fixing Nuts and Bolts



**XM830P**  
Rafter to Ridge Fixing Nuts and Bolts



**XGFP1**  
Gable Fixing Plate



**XM625P**  
Radius End to XRE1 Fixing Nuts and Bolts



**XM525P**  
XRE1 to Ridge Body Machine Screw



**XM828**  
28mm Tie Bolt



**XM843**  
43mm Tie Bolt



**XFEF1**  
Shield Eaves Turnbuckle to Frame Connecting Kit



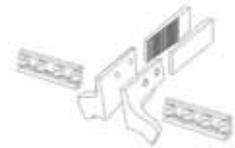
**XEC3**  
Rafter End Cap to Rafter Machine Screw Cap



**XM48-12**  
Eaves Beam Joiner/Ridge Carriage Self Drilling Screws

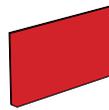


**XM420P**  
End Cap Machine Screw

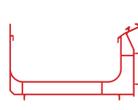


**XGS123P**  
Glass Kit (XGS4P for long span rafters)

## Box Gutter



**XBGSE1**  
Box Gutter Stop End (aluminium plate)

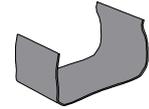


**XBG6**  
Box Gutter Body

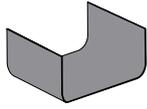


**XBGE2L**  
Box Gutter End Cap Left Hand

**XBGE2R**  
Box Gutter End Cap Right Hand  
● ○ ● ● ●



**XBG7**  
Box Gutter Adaptor and Connector Flashing Piece



**XGA21**  
Box Gutter In-line Connector



**XBGJ3**  
Box Gutter Joiner



**XBGC1**  
Box Gutter Bottom Clad  
● ○ ● ● ●



**XBGF**  
Insulation Foam

**XBGF2**  
Box Gutter Foam Insert



**XGB3**  
Box Gutter Support Bracket  
○ ● ●



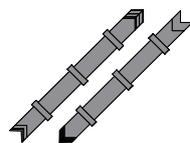
**XBGFP**  
Box Gutter Fixing Plate



**XBG3**  
Parabolic Head for Raised Back Box Gutter

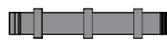


**XBGF3**  
Box Gutter Foam Insert



**XBGJC90I**  
Box Gutter Clad Joints Internal

**XBGJC90E**  
Box Gutter Clad Joints External  
● ○ ● ● ●



**XBGJC180**  
Box Gutter Clad Joints In-line  
● ○ ● ● ●

## Eaves Beam & Box Gutter



**XEBC2**  
Internal Eaves Clad/Box Gutter Side Clad  
● ○ ● ● ●



**XEBC7**  
Internal Eaves Clad/Box Gutter Side Clad (to suit SynerJy)  
● ○ ● ● ●



**XEBC90I**  
Internal 90° Eaves Clad Joint  
● ○ ● ● ●



**XEBC90I**  
Internal 90° Eaves Clad Joint (to suit SynerJy)  
● ○ ● ● ●



**XEBC135**  
Internal 135° Eaves Clad Joint  
● ○ ● ● ●



**XEBC135**  
Internal 135° Eaves Clad Joint (to suit SynerJy)  
● ○ ● ● ●



**XEBC150**  
Internal 150° Eaves Clad Joint  
● ○ ● ● ●



**XEBC180**  
Straight Eaves Clad Joint (to suit SynerJy)  
● ○ ● ● ●



**XEBC150**  
Internal 150° Eaves Clad Joint (to suit SynerJy)  
● ○ ● ● ●



**XEBC90E**  
External 90° Eaves Clad Joint  
● ○ ● ● ●



**XEBC90E**  
External 90° Eaves Clad Joint (to suit SynerJy)  
● ○ ● ● ●



**XEBC180**  
Straight Eaves Clad Joint  
● ○ ● ● ●

### 25mm Rafter

**XERC1** 25mm End Rafter Side Cap  
● ○ ● ● ●

**XER1** 25mm End Rafter (Light)  
● ○ ● ● ●

**XER2** 25mm End Rafter (Medium)  
● ○ ● ● ●

**XER3** 25mm Wall Rafter  
● ○ ● ● ●

**XJR1** 25mm Jack Rafter  
● ○ ● ● ●

**XT1** 25mm Rafter (Light)  
● ○ ● ● ●

**XT2** 25mm Transom Rafter (Medium)  
● ○ ● ● ●

**XT3** 25mm Transom Rafter (Heavy)  
● ○ ● ● ●

**XT4** 25mm Transom Rafter (Long Span)  
● ○ ● ● ●

**XVH1** 25mm Victorian Hip Rafter (Light)  
● ○ ● ● ●

**XVH2** 25mm Victorian Hip Rafter (Medium)  
● ○ ● ● ●

**XVH3** 25mm Victorian Hip (Heavy)  
● ○ ● ● ●

**XVH4** 25mm Victorian Hip (Long Span)  
● ○ ● ● ●

**XGH1** 25mm Georgian Hip (Light)  
● ○ ● ● ●

**XGH2** 25mm Georgian Hip (Medium)  
● ○ ● ● ●

**XGH3** 25mm Georgian Hip (Heavy)  
● ○ ● ● ●

**XGH4** 25mm Georgian Hip (Long Span)  
● ○ ● ● ●

### 25mm & 35mm Rafter

**XLT1** 25mm Transom Rafter & 35mm Jack Rafter  
● ○ ● ● ●

**XRE3** Radius End Bar Sleeve to suit XBC1 (Georgian Hips on XRE2)  
● ○ ● ● ●

**XSRE7** Radius End Bar Sleeve to suit XBC3 (Georgian Hips on XRE2)  
● ○ ● ● ●

**XBC1** Rafter Bottom Cap (to suit Shield)  
● ○ ● ● ●

**XBC3** Rafter Bottom Cap (to suit SynerJy)  
● ○ ● ● ●

**XERC25** End Rafter Top Cap (25mm & 35mm glazing)  
○ ●

**XRC25** Victorian & Transom Rafter Top Cap (25mm & 35mm glazing)  
○ ●

**XJC25** Jack Hip Rafter Top Cap (25mm & 35mm glazing)  
○ ●

**XGC25** Georgian Hip Rafter Top Cap (25mm & 35mm glazing)  
○ ●

**XERC25AL** End Rafter Aluminium Top Cap (25mm & 35mm glazing)  
● ○ ● ● ●

**XRC25AL** Victorian & Transom Rafter Aluminium Top Cap (25mm & 35mm glazing)  
● ○ ● ● ●

**XJC25AL** Jack Rafter Aluminium Top Cap (25mm & 35mm glazing)  
● ○ ● ● ●

**XGC25AL** Georgian Hip Rafter Aluminium Top Cap (25mm & 35mm glazing)  
● ○ ● ● ●

**PC01** End Rafter to Frame Coupling Profile  
● ○ ● ● ●

**XPC01** End Rafter to Frame Coupling Profile  
● ○ ● ● ● dc

**XGHC1** Plastic Clip Insert \*  
○ ●

**XGHG1** Top Cap Gasket\*  
● ○ ● ● ●

**SG83-OS** Oversized Top Cap Gasket  
● ○ ● ● ●

\* (required for aluminium top caps)

### 35mm Rafter

**XERC2** 35mm End Rafter Side Cap  
● ○ ● ● ●

**X3SER1** 35mm End Rafter (Light)  
● ○ ● ● ●

**X3SER2** 35mm End Rafter (Medium)  
● ○ ● ● ●

**X3SER3** 35mm Wall Rafter  
● ○ ● ● ●

**X3ST1** 35mm Transom Rafter (Light)  
● ○ ● ● ●

**X3ST2** 35mm Transom Rafter (Medium)  
● ○ ● ● ●

**X3ST3** 35mm Transom Rafter (Heavy)  
● ○ ● ● ●

**X3ST4** 35mm Transom Rafter (Long Span)  
● ○ ● ● ●

**X35VH1** 35mm Victorian Hip Rafter (Light)  
● ○ ● ● ●

**X35VH2** 35mm Victorian Hip Rafter (Medium)  
● ○ ● ● ●

**X35VH3** 35mm Victorian Hip (Heavy)  
● ○ ● ● ●

**X35VH4** 35mm Victorian Hip (Long Span)  
● ○ ● ● ●

**X35GH1** 35mm Georgian Hip (Light)  
● ○ ● ● ●

**X35GH2** 35mm Georgian Hip (Medium)  
● ○ ● ● ●

**X35GH3** 35mm Georgian Hip (Heavy)  
● ○ ● ● ●

**X35GH4** 35mm Georgian Hip (Long Span)  
● ○ ● ● ●

**XLEC1L** Lean To End Cap Left Hand  
● ○ ● ● ●

**XLEC1R** Lean To End Cap Right Hand  
● ○ ● ● ●

**XWEC1L** End Bar to Wall End Cap Left Hand  
● ○ ● ● ●

**XWEC1R** End Bar to Wall End Cap Right Hand  
● ○ ● ● ●

**XGHEC1** Georgian Hip End Cap  
● ○ ● ● ●

**XTEC1** Transom/Victorian End Cap  
● ○ ● ● ●

**XJEC1** Jack Rafter End Cap  
● ○ ● ● ●

**XWPEC1-AL** Wallplate End Cap (Left Hand Shown)  
● ○ ● ● ●

**XLEC1L-AL** Lean To End Cap Left Hand  
● ○ ● ● ●

**XLEC1R-AL** Lean To End Cap Right Hand  
● ○ ● ● ●

**XWEC1L-AL** End Bar to Wall End Cap Left Hand  
● ○ ● ● ●

**XWEC1R-AL** End Bar to Wall End Cap Right Hand  
● ○ ● ● ●

**XGHEC1-AL** Georgian Hip End Cap  
● ○ ● ● ●

**XTEC1-AL** Transom/Victorian End Cap  
● ○ ● ● ●

**XJEC1-AL** Jack Rafter End Cap  
● ○ ● ● ●

All components are available in different colours - the codes shown are for 'White'.

**Colour key:** ■ Plastic ■ Aluminium ■ Rubber ■ Steel ■ Other ■ Mixed component

**Component colours available:** ● Mahogany ● Brown ● Caramel ● Cherrywood ● Golden Oak ● Black (B - only foam components)

dc = dual colour ○ White (no additional suffix) ● Blu White (BLU) △ Gloss Finish White Aluminium (GWA)

# Component chart

## Ridge & Wallplate

<b>XR25</b> 25mm Ridge Main Body (15°-25°)	<b>XR35</b> 25mm Ridge Main Body (15°-35°)	<b>XRF25 or XLRF25</b> 25mm Ridge Main Body (Fixed 25°)	<b>XLRF20</b> 25mm Ridge Main Body (Fixed 20°)	<b>XLRF225</b> 25mm Ridge Main Body (Fixed 22.5°)	<b>XRJF1</b> Ridge Joiner Fixed	<b>XR3</b> Ridge Under Channel			
<b>XRTC2</b> Ridge Top Cap	<b>XRJV1</b> Ridge Joiner Variable Ridge	<b>XR2</b> Ridge Carrier	<b>XRE25</b> Rain Excluder 25mm	<b>XRE35</b> Rain Excluder 35mm	<b>XWP10</b> 25mm Wallplate Main Body (5°-10°)	<b>XWP30</b> 25mm Wallplate Main Body (5°-30°)	<b>X35WP10</b> 35mm Wallplate Main Body (5°-10°)	<b>X35R25</b> 35mm Ridge Main Body (15°-25°)	
<b>X35R35</b> 35mm Ridge Main Body (15°-35°)	<b>X35RF25 or XL35RF25</b> 35mm Ridge Main Body (Fixed 25°)	<b>XL35RF20</b> 35mm Ridge Main Body (Fixed 20°)	<b>XL35RF225</b> 35mm Ridge Main Body (Fixed 22.5°)	<b>XWPF5</b> 25mm Wallplate Main Body (fixed 5°)	<b>XWPF10</b> 25mm Wallplate (fixed 10°)	<b>X35WPF5</b> 35mm Wallplate (fixed 5°)	<b>X35WPF10</b> 35mm Wallplate Main Body (5°-30°)	<b>X35WPF30</b> 35mm Wallplate Main Body (5°-30°)	
<b>XWPC4</b> Wallplate Top Cap	<b>XWPC4AL</b> Aluminium Wallplate Top Cap	<b>XRTC2AL</b> Aluminium Ridge Top Cap (requires XR4)	<b>XR4</b> Aluminium Ridge Top Cap Clip	<b>XRBC2</b> Ridge Bottom Cap	<b>XRBC3</b> Ridge Bottom Cap (to suit SynerJy)				
<b>XPACKER1</b>	<b>XRECG1</b> Georgian Radius End Top Cap 25°-24°	<b>XRECG2</b> Georgian Radius End Top Cap 25°-35°	<b>XRECG3</b> Georgian Radius End Top Cap (reduced skirt)	<b>XRECG4</b> Georgian Radius End Top Cap 25° (no centre rafter)	<b>XRECG5</b> Georgian Radius End Top Cap 25°	<b>XREG1</b> Rain Excluder Gasket	<b>XRE2</b> Standard Radius End		
<b>XPACKER2</b>	<b>XRE4</b> Non-standard Radius End	<b>XRECU</b> Wallplate Radius End Bottom Cap (not handed)	<b>XRECL</b> Wallplate Radius End Top Cap Left Hand	<b>XRECR</b> Wallplate Radius End Top Cap Right Hand	<b>XREC15</b> Victorian Radius End Top Cap 15°-24°	<b>XREC25</b> Victorian Radius End Top Cap 25°-35°	<b>XFT1</b> Ridge Top Cap Flashing Trim		
<b>XPACKER5</b>	<b>XGHP1</b> Aluminium Georgian Hip Packer	<b>XFT2</b> Ridge Top Cap In-Line Joiner	<b>XPT90</b> P/T Ridge Top Cap Corner Cover	<b>XREC2</b> Radius End Bottom Cap	<b>XREC2/1</b> Radius End Bottom Cap	<b>XRE1</b> Radius End to Ridge Connector	<b>XRE1/N</b> Radius End to Ridge Connector (notched for glass)	<b>XRES</b> Radius End Foam Bung	<b>XWPC2</b> Wallplate Bottom Cap
<b>XWPC5</b> Wallplate Bottom Cap (to suit SynerJy)	<b>XWPEC1L/R</b> Wallplate End Cap (left hand shown)	<b>XLPWEC1L/R</b> Fixed Wallplate End Cap (left hand shown)	<b>XREC6</b> Large Radius End Bottom Cap	<b>XRECTK</b> Radius End Top and Bottom Cap Template Kit	<b>XGEC1</b> Gable End Ridge Top Cap	<b>XCRE1</b> Shield Cresting	<b>XFIN1</b> Shield Finial		
<b>XCRE2</b> Global Cresting	<b>XFIN2</b> Global Finial	<b>XNDF1</b> Pip/Stub Finial	<b>XNDF2</b> Ball Finial	<b>XTBRC1</b> Tiebar to Radius End Connector	<b>XNDCAL</b> Non Decorative Cresting	<b>XREC3</b> Radius End Top Cap Fixing Rivets	<b>XRE4</b> M8 Nut Covers		
<b>XGEC1-AL</b> Gable End Ridge Top Cap	<b>XRECL-AL</b> Wallplate Radius End Top Cap Left Hand	<b>XRECR-AL</b> Wallplate Radius End Top Cap Right Hand	<b>XREC-AL</b> Victorian Radius End Top Cap	<b>XFIN3-AL</b> Finial	<b>XCRE3-AL</b> Cresting				

### Bolster



**XBOLC1AL**  
Bolster Cladding  
△ ● ● ● ●



**XBEC1**  
Bolster End Cap  
● ○ ● ●



**XB3**  
Bolster Bar



**XGHC1**  
Plastic Clip Insert  
(required for bolster cladding)

### Valley Rafter



**XVA3**  
25mm Valley Body



**X35VA3**  
35mm Valley Body



**XVTC1**  
Valley Body Top Clad  
● ○



**XVEC1-AL**  
Valley End Cap  
△ ● ● ●



**XVEC1**  
Valley End Cap  
● ○ ● ●



**ST510**  
Security Tape for Valley Wing



**XEBC2**  
Valley Wing Internal Clad  
(2 per Valley required)  
● ○ ● ● ●



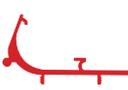
**XEB7**  
Valley Wing Internal Clad to suit SynerJy  
(2 per Valley required)  
● ○ ● ● ●



**XVTC2AL**  
Valley Body Top Clad (wing)  
Aluminium (2 per XVTC1AL required)  
△ ● ● ●

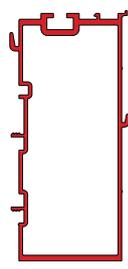


**XVTC1AL**  
Valley Body Top Clad (centre) Aluminium  
△ ● ● ●



**XVA2**  
Valley Wing  
(2 per Valley required)

### Eaves Beam

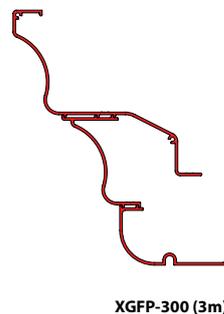


**XOEB1**  
Orangery Eaves Beam Extender

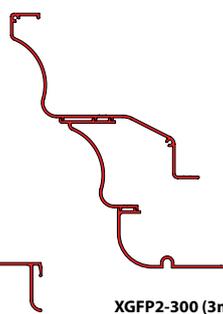


**XGUTC**  
Aluminium Gutter Fascia Clip

### Gutter Fascia Extensions



**XGFP-300 (3m)**  
**XGFP-400 (4m)**  
**XGFP-500 (5m)**  
Gutter Fascia Kit, all 3 parts supplied as a kit  
● ○ ● ●



**XGFP2-300 (3m)**  
**XGFP2-400 (4m)**  
**XGFP2-500 (5m)**  
Gutter Fascia Kit, all 3 parts supplied as a kit  
(Retro fit option - only compatible with XEB6 and XEB7)  
● ○ ● ●



**XGUTF-PLT**  
End Plate (Mill finish)



**XGUTF-PLT2**  
End Plate (Mill finish)

### Screws & Bolts



**XM48-12**  
M4.8 x 12mm



**XM4819SS**  
M4.8 x 19mm

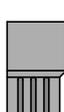


**XM420**  
M4 x 20mm

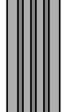


**XM825**  
25mm

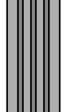
### Pilasters



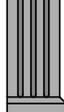
**XDPC**  
90° Corner Pilaster



**XDPI**  
180° Inline Pilaster



**XDPWL**  
Decorative Pilaster  
(For left hand wall - as viewed facing the conservatory)



**XDPWR**  
Decorative Pilaster  
(For right hand wall - as viewed facing the conservatory)



**XDPWLC**  
Decorative Pilaster  
(For left hand wall with cut-out)



**XDPWRC**  
Decorative Pilaster  
(For right hand wall with cut-out)



**XDPWLC-BG**  
Decorative Pilaster  
(For left hand wall with cut-out to suit box gutter)



**XDPWRC-BG**  
Decorative Pilaster  
(For right hand wall with cut-out to suit box gutter)



**XDPR2**  
Insert Connection  
(For XDPR1)

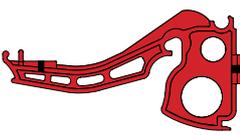


**XDPR1**  
Two Part Aluminium Frame Connector

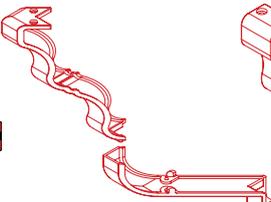


**XDPVAC**  
Decorative Pilaster Aperture Cover

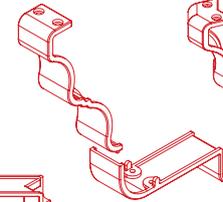
### Castings



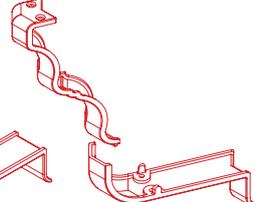
**XGUTF-GCS**  
Gutter Bracket  
● ○ ● ●



**X90E**  
90° External Fascia Corner  
● ○ ● ●

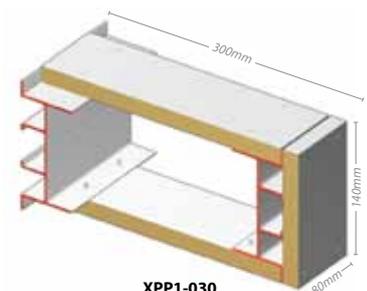


**X180E**  
180° Inline Gutter Fascia Cover  
● ○ ● ●

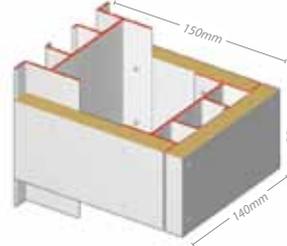


**X135E**  
135° External Fascia Corner  
● ○ ● ●

### Pelmet Pods



**XPP1-030**  
Pelmet Pod  
300mm x 140mm x 80mm



**XMP1-015**  
Mullion Pod  
(Suitable for a 50mm cavity wall)  
150mm x 140mm x 80mm



**XFB300-500**  
Flatboard

## Technical support

**At Synseal an experienced and skilled customer care team is always on hand to provide technical advice, answer any conservatory roof or roof glazing-related questions and assist with project enquiries.**

### Quality

Global roofs carry a 10 year guarantee, with manufacture and supply carried out under certificated BS EN ISO9001:2000 quality management systems.

### Technical compliance – UK specification

Building Regulations Part A1 concerning loading of buildings is a key reference document when designing glazed roof structures. All weather parameters for specific site postcode, including an assessment of the local terrain and topography, prevailing wind speeds and pressures, are taken into account to determine how the roof will be constructed.

*Global roof sare designed to meet the requirements of:*

- **BS 8118-1:1991**  
(Code Of Practice For Structural Use Of Aluminium)
- **BS 6399-2:1997**  
(Code Of Practice For Wind Loads)
- **BS 6399-3:1998**  
(Code Of Practice For Imposed Wind Loads)

Building Regulations Part K4 should be consulted if glazed building elements are sited adjacent to busy pedestrian areas. In such situations, windows projecting internally or externally beyond 100mm should be sited 2 metres above floor or ground level, or barriers fitted to protect the public from collision.

Building Regulations Part L refers to different building types and itemise thermal U-value performance. Standards for refurbishment of existing buildings are more exacting and provide options for using WER 'whole unit' calculations in place of the established U-values. BRE 443 is a U-value reference document for non-vertical glazed surfaces.

*Note: A-rated WER solutions for the whole window, frames and glass, can deliver insulation U-values as low as 0.8 W/m<sup>2</sup>K. A-rated DSER (Door Set Energy Rating) solutions are now also available, enabling specification of thermally-efficient glazed wall envelopes encompassing both windows and doors.*



*Victorian design with glass roof*

Building Regulations Part M highlights the need for doors to be fitted with low thresholds to ensure easy access for all, including wheelchair users.

Building Regulations Part N specifies rules for visual manifestation of glazed elements, such as entrance doors, and deals with provision of access for cleaning.



U-shaped bespoke design providing dual living areas



Large Edwardian conservatory



One of Synseal's fleet of over 40 delivery vehicles



Ridge radius end assembly



Synseal's main site and manufacturing centre



Full length glazing



Synseal is a leading UK manufacturer of conservatory roof, window and door systems

**Global is the UK's No 1 conservatory roof system from Synseal Extrusions Ltd. Established over 30 years ago, Synseal now employs 1200 people and has a turnover in excess of £130 million. Main operations are located at a UK-based 35 acre site with 70,000 square metres of production, warehousing and office facilities.**

The corporate objective at Synseal is to deliver thermally efficient products of consistently excellent quality and design to markets worldwide, at competitive prices.

Synseal constantly seeks to develop environmentally friendly new products which will support sustainable development and reduce carbon consumption. New ranges are designed with 100% recyclability, improved performance and cost-effectiveness in mind.

Synseal is **ISO14001 accredited** which ensures that all company environmental management systems comply with and even exceed government mandates.

All quality management systems are **ISO9001 accredited** which ensures that all processes are constantly checked and improved upon, to reduce waste and increase efficiency.

Synseal products are independently tested and accredited by the British Standards Institute (**BSI**) and the British Board of Agrément (**BBA**).

		
<b>ISO14001</b> Environmental management accreditation	<b>BBA</b> Construction industry accreditation	<b>ISO9001</b> Quality systems accreditation



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