



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

Conservatory roofs

A proven roof design – independently tested



Snow load capability > 2.7

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 m²: PASSED
 (equivalent weight of 4 feet of snow per m²)



Wind speed resistance > 250 kph

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 m²)







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



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.







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.



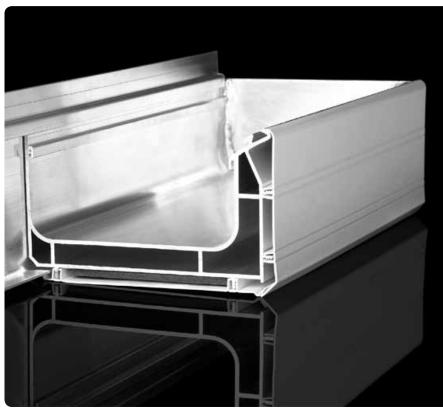
Elegant tie bar

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.



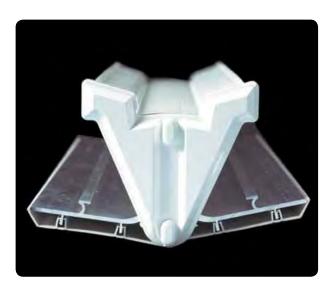
Insulated box gutter

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.



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.



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.



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.







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



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.





Lantern

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





T-shaped

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





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 weatherresistant 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



Glazed colonnade walkway, finished to a RAL specified spray-coated finish

For super-sized conservatories and architectural widespan 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 30 to 2000m² 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













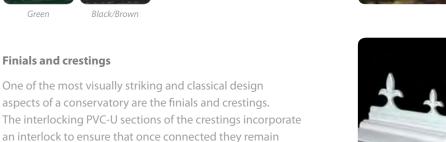


Coloured roofs to suit each project

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.







in a perfect line. A range of decorative finial designs are









Global finial & Global cresting







Shield finial and cresting



Global Summer is a design enhancement of the proven Global conservatory roof to provide 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 pelme 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.



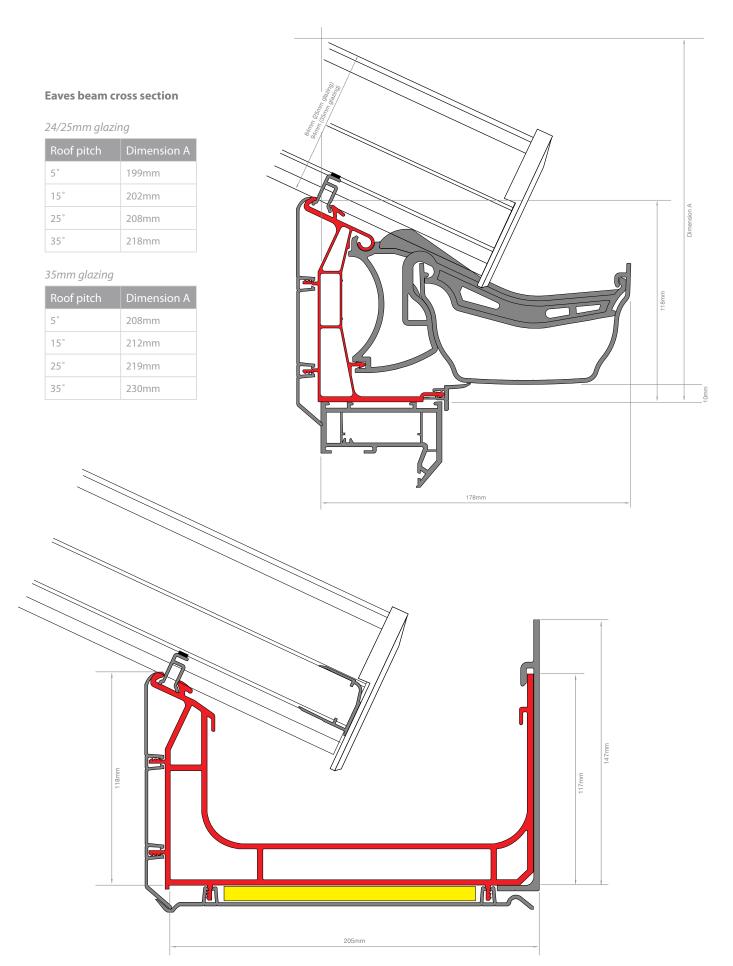


T-shaped Chartwell Green Global Summer installation with gable-end mid section



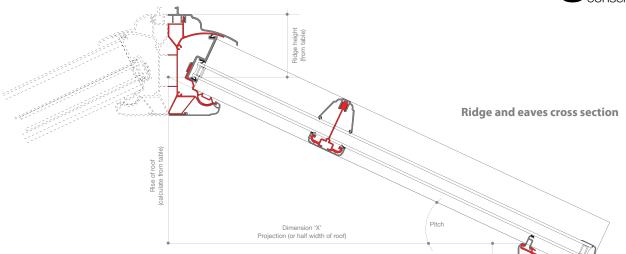
Designed to enable conservatory installers to offer an attractive and easy to install orangery solution - Global Summer provides stylish aesthetic appeal with additional practical benefits, such as incorporating downlighters into the pelmet section which add value and enhance the Global conservatory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

Technical information



Box gutter cross section

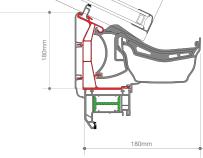




Ridge height calculator

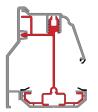
Roof pitch	Rise of roof - X multiplied by:	Ridge height
5°	0.0875	119mm
6°	0.1051	118mm
7°	0.1228	117mm
8°	0.1405	116mm
9°	0.1584	115mm
10°	0.1763	114mm
11°	0.1944	113mm
12°	0.2125	112mm
13°	0.2309	111mm
14°	0.2493	110mm
15°	0.2679	109mm

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



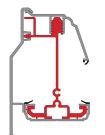
XVH3 Heavy Victorian Hip Rafter
XRC25 Top Cap

Bottom Cap



XGH1 Light Georgian Hip Rafter XGC25 Top Cap XBC1 Bottom Cap

35mm rafter cross sections



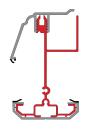
X35ER2 Medium End Rafter
XERC25 Top Cap
XBC3 Bottom Cap
XERC2 Side Cap



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



XBC1

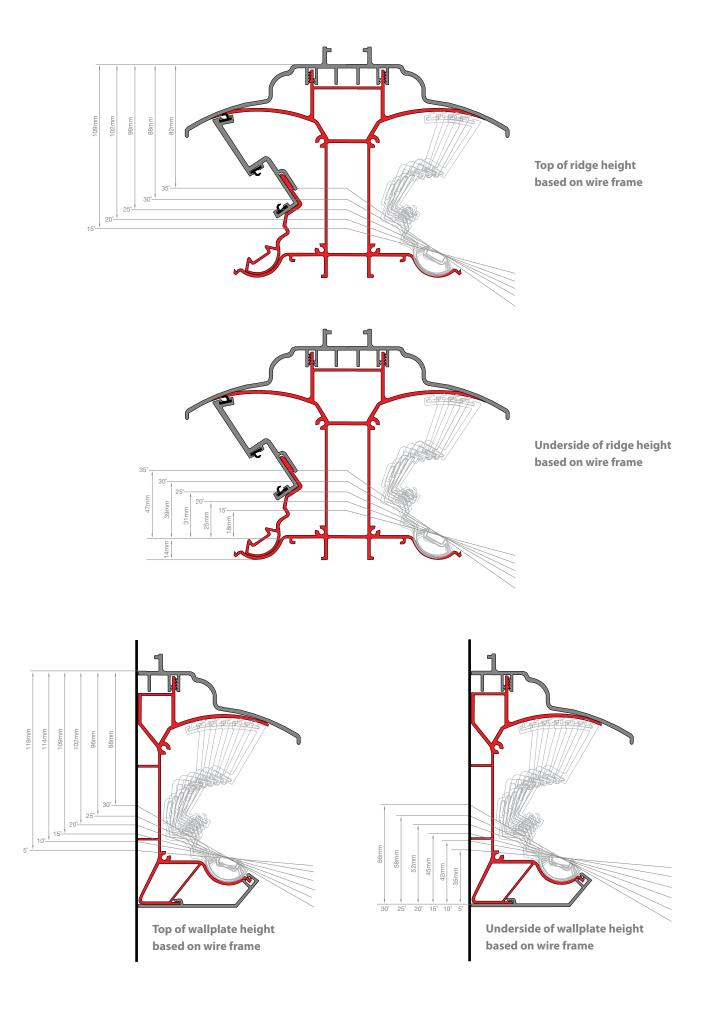
X35VH1 Light Victorian Hip Rafter XRC25 Top Cap

Bottom Cap

XBC1

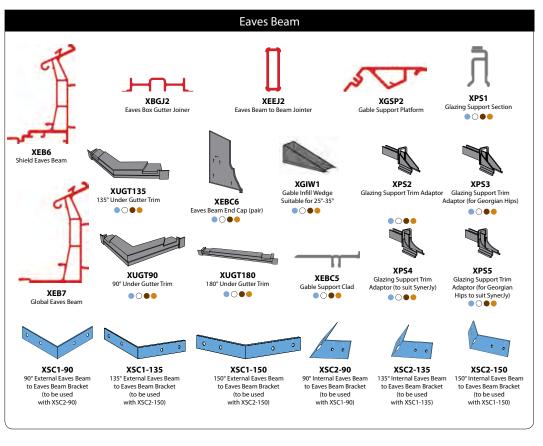


X35GH2 Medium Georgian Hip Rafter XGC25 Top Cap XBC1 Bottom Cap









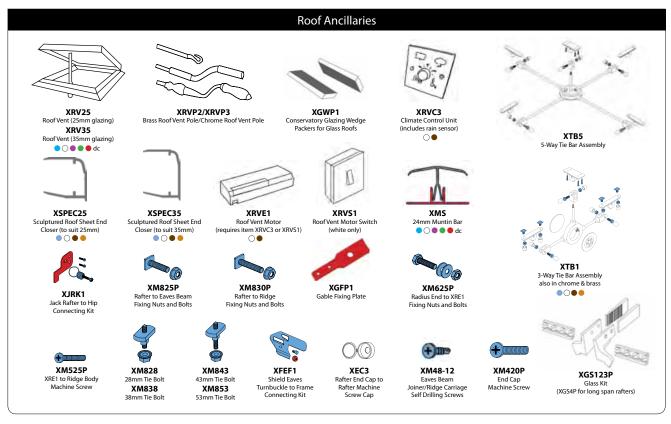


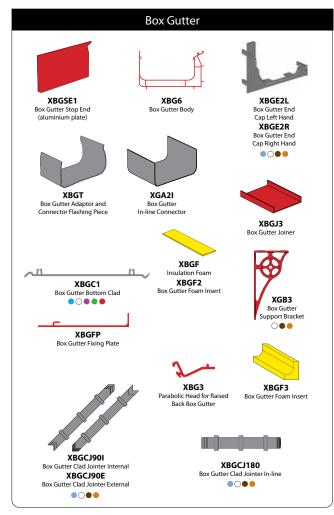
All components are available in different colours - the codes shown are for 'White'.

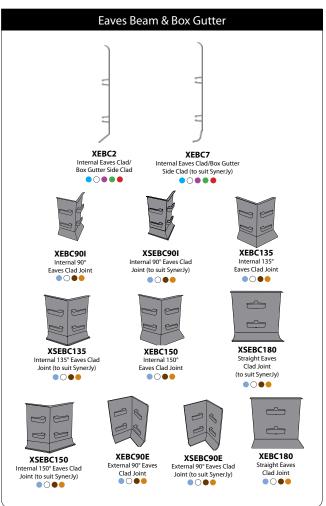
Colour key: Plastic Aluminium Rubber Steel Other Mixed component

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

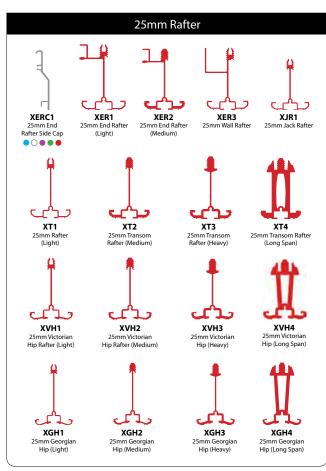
dc = dual colour White (no additional suffix) Blu White (BLU) Gloss Finish White Aluminium (GWA)

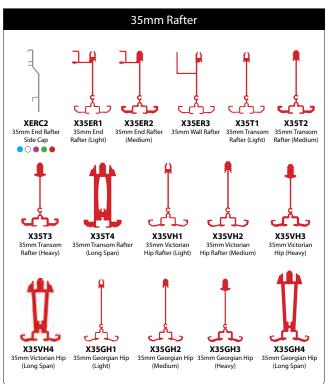


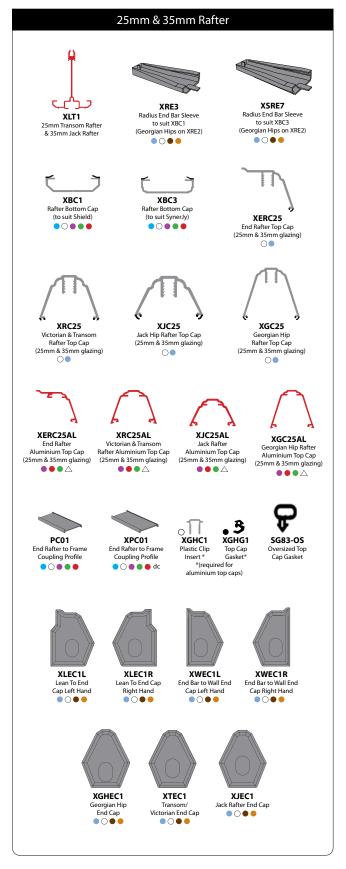






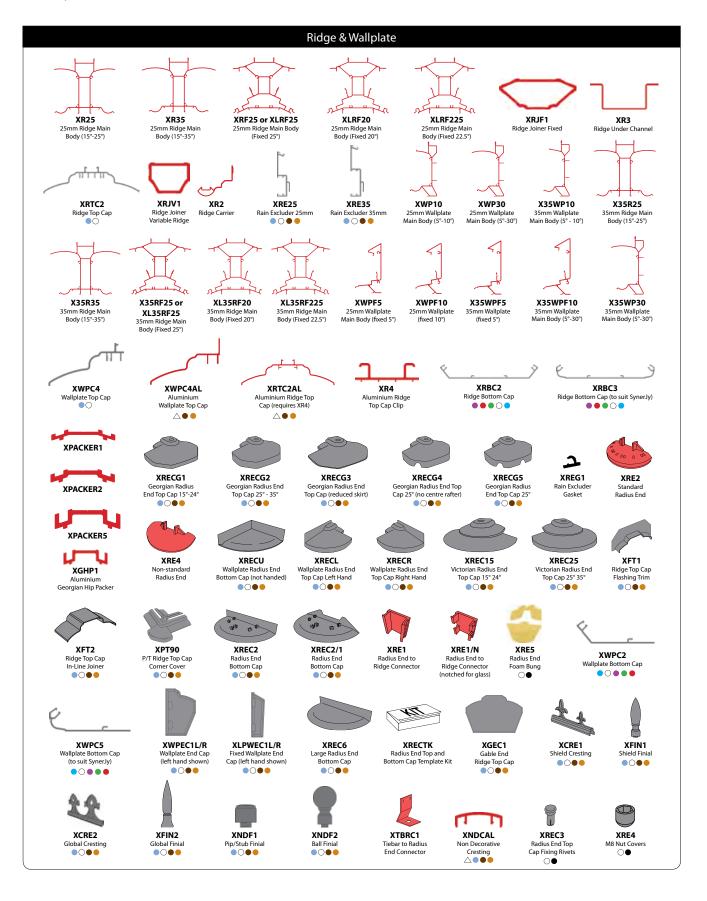




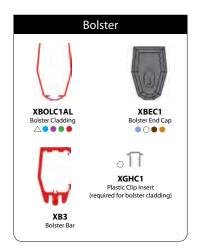


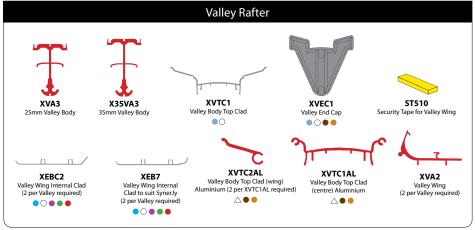
All components are available in different colours - the codes shown are for 'White'.

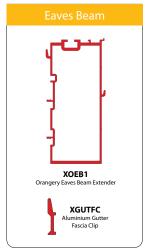


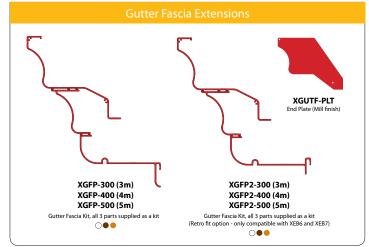


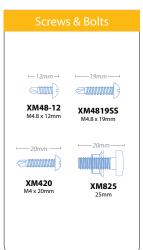


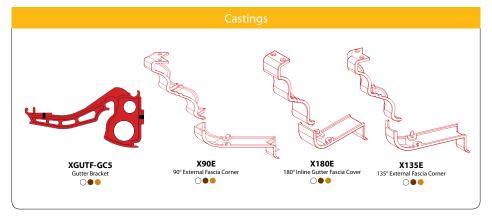


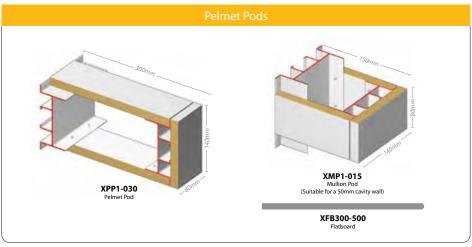












Technical support

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/m²K. 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.

