

Eurocell conservatory roof system guide

Design-engineered for faster,
smoother installation and years
of trouble-free performance



All together better

Eurocell conservatory roof system

The better choice



The Eurocell conservatory roof system offers you a unique solution. A top quality conservatory system with many unique features designed to eliminate common problems experienced by both fabricators and installers - at a price point that doesn't penalise you for wanting to fit the best.

Designed from the ground up by Eurocell's experienced product development team, the philosophy

behind this system has come from listening to installers and fabricators and finding out what they want from their ideal roof system. Speed and ease of installation and fabrication, coupled with design flexibility were key objectives during the design of the system. This has led to the development of one of the most advanced and user friendly systems on the market, which has met and surpassed the rigorous criteria required for BBA accreditation.

The strengths of the Eurocell conservatory roof system are backed by Eurocell's manufacturing expertise, efficient infrastructure and support network. Ongoing capital investment ensures that this system will continue to be a market leader in conservatory design, and help keep you at the forefront of conservatory technology.



Certificate No. 04/4156
The Eurocell
Conservatory Roof System



BS EN ISO 9001:2000
BSI Registered Firm
FM 45551 Quality Management System



BS EN ISO 14001
BSI Registered Firm
Environmental Management System



In house extrusion of all sections means perfect colour match across the whole Eurocell range, from windows to roofline, ensuring your conservatory complements the rest of your property.

Roof glazing

- Roof pitches between 2.5° - 45° in 24mm glass or 25/32mm polycarbonate.
- Patented ridge end sealing assembly reduces the risk of water ingress and overcomes the need for silicone sealing.
- Incorporates glass retention system as standard on every roof design.
- The ridge top cap can be fitted and lead work complete before glazing

making it quicker and easier for installers to obtain water tight installations.

- Aesthetically designed, maintenance free aluminium and PVC-U ridge cresting and finials.
- Fully foiled ridge top capping for all woodgrain installations

Guttering

- Ogee guttering sits clear in front of eaves beam reducing any risk of overflow leaks.

Glazing bars

- A built in rafter gutter system is supplied as standard for neat and leak-free lead flashing back against house walls.
- Jack rafter locations allow four way adjustment on-site to ensure neat connections.

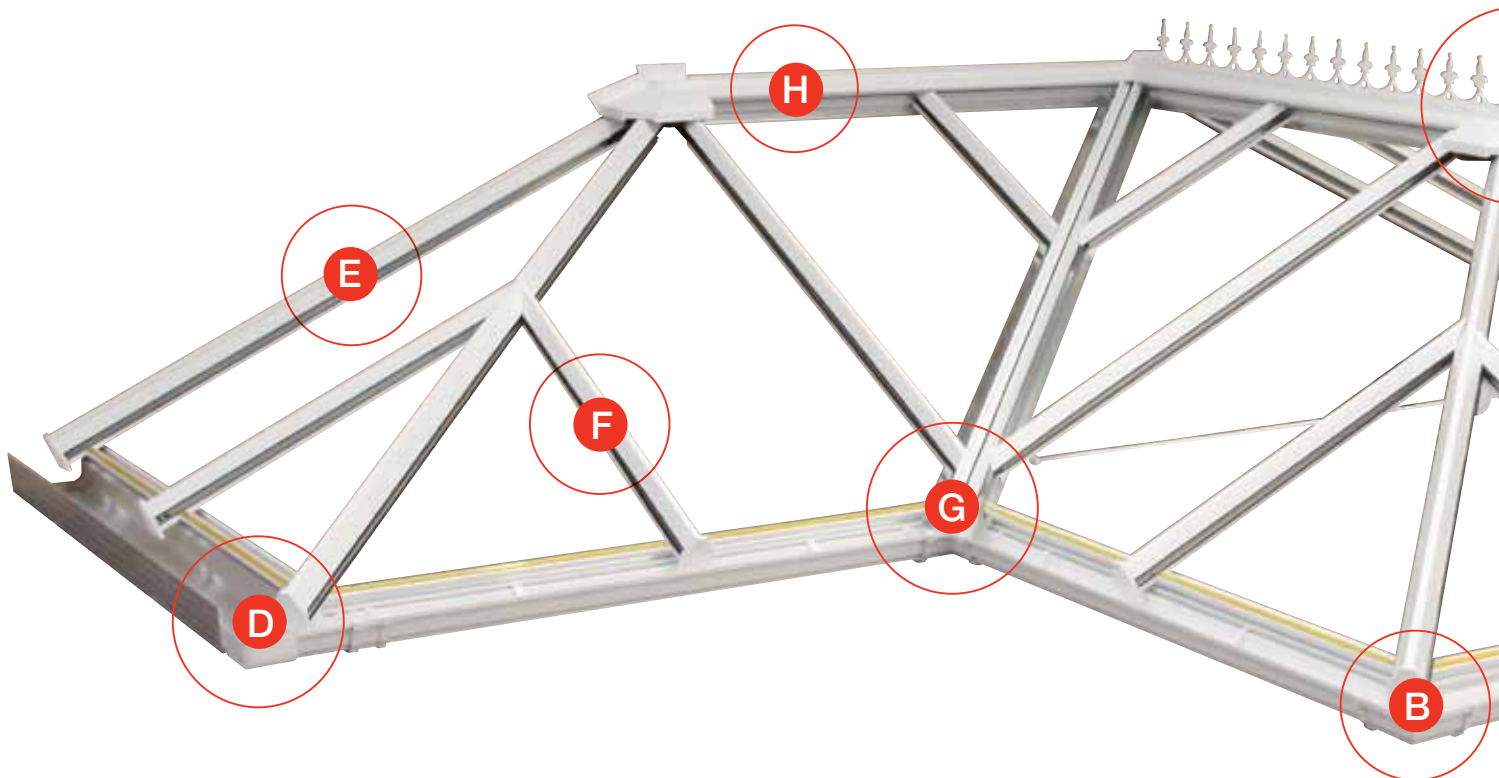
- Simple and neat clip up and over rafter end caps. Great for box gutters or where access is limited.

Box gutters

- High strength standard box gutters never require additional internal strapping even for glass.
- Silicone-free box gutter adaptors make for easy leak-free all weather installation.
- Box gutters are cut square to the external face of the frames below rather than mitred over them minimising any risk of internal leakage.

Eurocell conservatory roof system

The main features and benefits



Overview

In order to illustrate the main features and benefits of the Eurocell conservatory roof system we use this Edwardian P-shaped conservatory with box gutter and hip to take you through the various elements that combine to make this system the ideal choice for today's market.

Colour options

The Eurocell conservatory roof system is available in a range of different colour options including White, Rosewood, Golden Oak, Rosewood on White and Golden Oak on White.

When required the Eurocell conservatory roof system can be specified with a complete range of fully foiled components. This includes foil finishes to the external ridge top capping, ridge ends, half ridge capping and valley capping; providing a unique and continuous finish. Aluminium foiled glazing bar top caps are also available.

Colour fast

Specially formulated resins and stabilizers ensure that our profile will not discolour over time, ensuring hassle free installations and peace of mind.

Standard colour options



White



Cream



Golden Oak



Rosewood

Special colour options



Irish Oak



Chartwell
Green

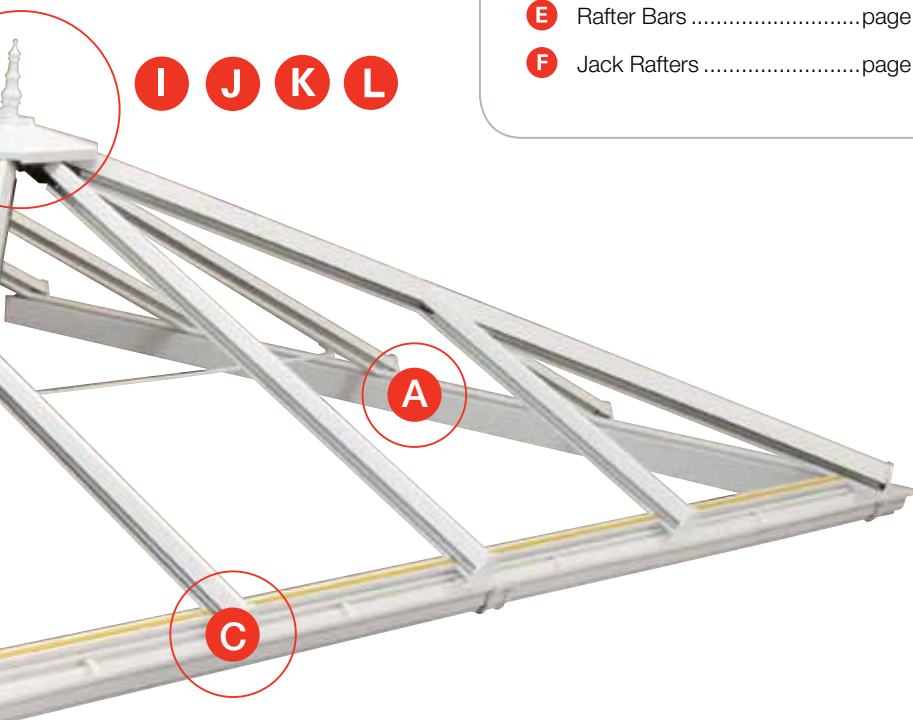


Black



Grey

Special colours available on extended lead times



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Perfectly colour-matched

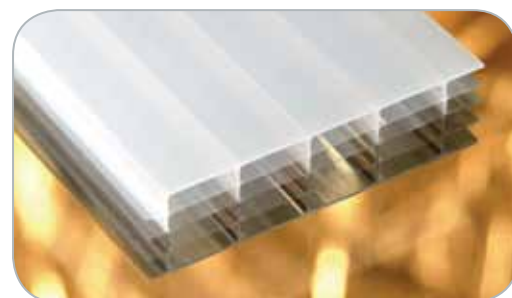
Eurocell mixes its own PVC-U compound which is used across our entire range of products, so whichever finish and colour options you choose you can be assured that if you also install either Eurocell windows, doors or roofline products, they will match perfectly.

Glazing options

The Eurocell conservatory roof system is designed to accommodate a wide range of different glazing. 25mm or 32mm polycarbonate and 24mm sealed glass units can all be specified in various finishes (see page 24 for glazing information and 32mm triple glazed glass).

Designed to last

Designed and manufactured to stand the test of time, the Eurocell conservatory roof system's BBA accreditation guarantees a life expectancy of at least 25 years for White and foiled finishes for pitches as low as 2.5° and as high as 45°.





Fixed 25° angle box section eaves beam



Eaves beam and guttering

Glazing pitches between 2.5° and 45° can be achieved from the box section aluminium eaves beam, which has been designed to provide maximum strength and thermal efficiency. The external front edge of the eaves beam is thermally clad in PVC-U, onto which gutter brackets are attached, which simply twist into place. These concealed brackets support a clip-fit dry joint gutter system which sits far enough forward to avoid any need for special running outlets and overcomes any risk of overflow leakage finding its way inside the conservatory.



Variable angle 2.5° - 45° box section beam eaves beam



Sculptured eaves

The new sculptured range includes eaves, corners and internal ridge under cladding. Designed for greater consumer appeal, it's sure to be a hit with your customers.



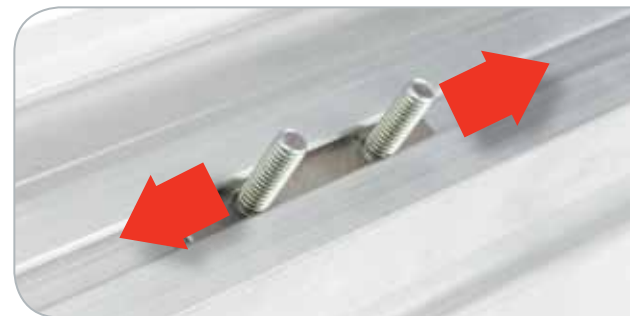
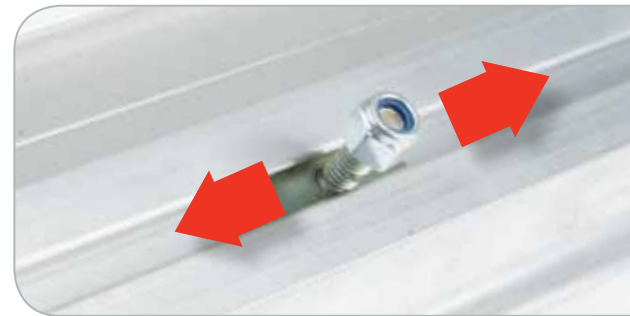
Rafter fixing and end detail

Easy slide single and double fixing studs are used to bolt rafters into position. They allow for easy movement and adjustment of the rafter bar before final positioning and fixing takes place. Simple and neat clip 'up and over' rafter end caps incorporate and conceal high strength glazing end stops on the bottom of each bar.

Glass roof suitability

Suitability for glass roof glazing is a major feature for the Eurocell roof. Each glazing bar is supplied as standard with concealed high strength glass end stops. This provides a safe buffer platform for units to rest against to overcome any risk of slippage while the wide flat base of the eaves beam seal minimises any 'roll out' weakness between the bars.

In addition the minimal reliance on silicone sealing around either the eaves or ridge highlights the attention to detail that has gone into every aspect of the roof design. Together this makes the Eurocell roof particularly suitable for conservatory roof glass, such as Perfect Day (see page 20 for details).



Box gutters

Wide box gutter design provides space and access for fitting and maintenance. Cutting the box gutter to the external frame dimensions avoids any need to mitre across and over the top of window frames, minimising any risk of water ingress.

Strength is also one of the design features of the box gutter system. Combining it with the eaves beam section overcomes any need for additional strapping. Also in situations where the box gutter requires on-site jointing, running the eaves beam across the join locks the sections together to help minimise movement and risk to the seal joint.

Silicone-free box gutter adaptors can be installed in all weathers by simply clip fitting the metal brace strap into position. This minimises the reliance on the installer and overcomes any need for heat guns, drying, or taping onsite. All box gutters are supplied with foam insulation to minimise the build up of condensation within the conservatory.



Silicone-free box gutter adaptors



A selection of box gutter adaptors



Box gutter under cladding and insulation

Raised back box gutter

Included within the box gutter range are special dedicated raised back attachment and extension sections that utilise the same variable support section as used around the eaves beam.

This provides full pitch flexibility and allows the same sealing method and system to be used. The result speeds site installation and ensures a neat final clad finish.



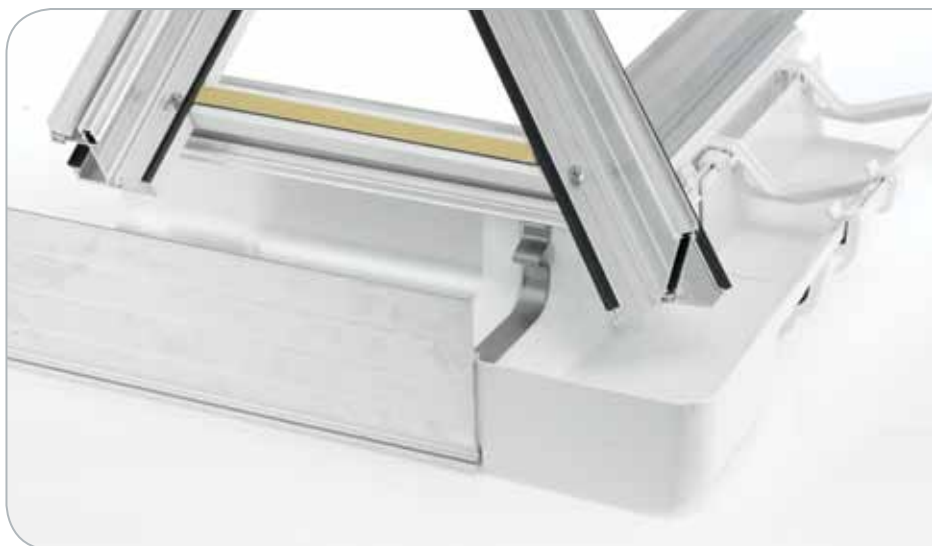
Raised back box gutter

How it works

A unique feature of the Eurocell roof is the leak-free and silicone-free box gutter adapters. This is achieved by running the eaves beam along the inside face of the box gutter.

This allows the eaves beam to be mitre cut at corners without requiring any cutting to the box gutter, which can then be cut flush to the outside frame. This means any water can only drain away to the outside of the conservatory.

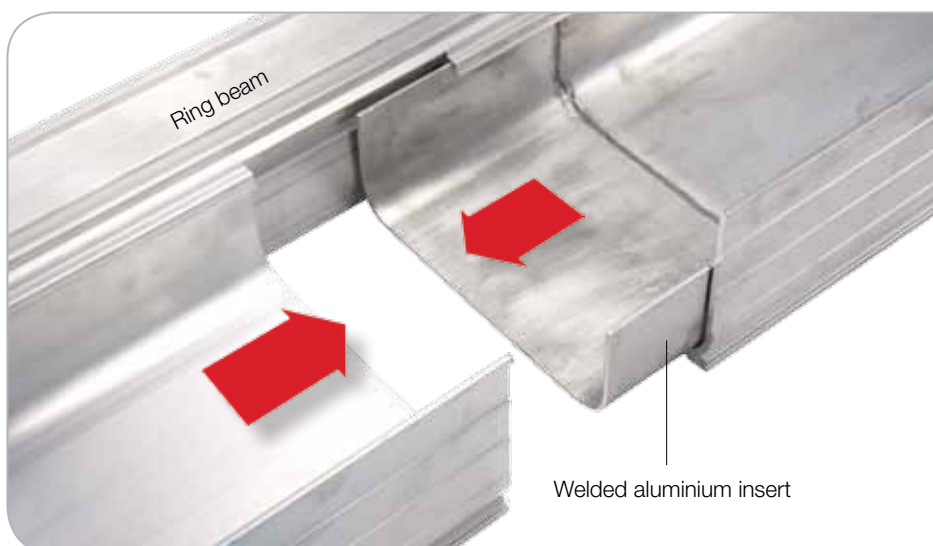
The dry joint adapter simply slides into place before being retained by a clip-fit steel brace. This results in a leak-proof all weather installation solution, which is silicone-free.



Joining box gutters

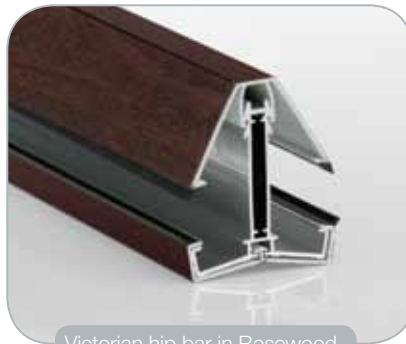
Occasionally for either transport or access reasons it is necessary to cut box gutters. Such box gutters then need to be mechanically rejoined on site. In these cases, a factory welded insert simply slides into the adjoining section before sealing.

The insert helps keep box gutters together during installation and once installed minimises any movement to maintain a watertight join. The ring beam then runs across the join to help lock each side of the box gutter together and minimise any subsequent movement.



Heavy duty rafter bars

A purpose designed range of bars which can accept 25mm and 32mm polycarbonate or 24mm glass sealed units. All such bars are supplied with glazing stops which are concealed behind special clip up and over end caps. For greater spans bars can be supplied with concealed steel reinforcement after which a range of bolster bars (with dedicated end caps) is available which can be fitted to the underside of the bar.



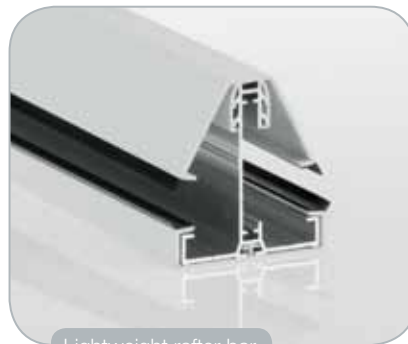
Victorian hip bar in Rosewood



New heavy duty rafter bar



Bolster bar



Lightweight rafter bar



Edwardian hip bar



Top cap with a PVC thermal break



Rafter bar with central steel insert

Aluminium top cap option

The aluminium top cap provides the ideal solution when you want to offer your customers an alternative premium product.

Gable rafter bars

All conservatory designs that include wall mounted gable rafters are supplied with an integral gutter channel as standard for neat and effective lead flashing.



Gable cloaking trim



Integral gutter system



Jack rafters

Low line easy fit jack rafters require no notching. The jack rafter assembly slides down the central chamber of the rafter bar to ensure a strong and secure fixing. Moveable fixing blocks link the hip bar to the jack rafter assembly. This simple design provides flexibility enabling 4-way on-site adjustment if necessary.





Valleys

The variable angle valley gutter system provides secure and watertight installations for both glass and polycarbonate glazing and is able to accommodate a wide range of different pitch combinations.

It also incorporates a glass retention system, and high strength glazing tape. The valley gutter system can also be used with drop valley situations and internal 135° corner situations.

Valley jack rafters are sealed using a slid able bolt system allowing greater flexibility on site.



A purpose designed end cap closes the bottom of the valley



Dedicated 'L' shaped ridge cover cap is available for neat finishing and sealing

Lean-to wall plates

The lean-to wall plate is a cost-effective solution for mono pitch gable end lean-to conservatories. This system is suitable for pitches between 2.5° and 15°. The neat top cap detail makes for easy lead flashing and sealing.



New low line wall plate

The low line wall plate wall plate is designed to give extra flexibility for mono pitch to designs where minimal roof height is imperative. The system eliminates the need for a PVC-U top cap, greatly reducing height. The system is suitable for pitches between 2.5° and 5°.



Half-ridge wallplates

The half-ridge wall plate is used in combination, P-shaped and hipped lean-to conservatory designs.

A half spider bracket, spider mouldings and half ridge bung assembly are available to ensure the same reliable, weather tight seal as achieved with full ridges. Suitable for pitches between 15° and 45° using either polycarbonate or glass.

When woodgrain finishes are required, all caps and under claddings are supplied fully foiled.



Deep skirt top cap

To ensure a neat and water tight finish to hip ended roof designs with pitch variance from one side of the hip to the other, a deep skirt half top cap is available.

This allows the top cap to be cut to sit level, on top of the glazing, on either side of the hip.





Lean-to conservatory roof in Rosewood

Ridges

A fixed 25° or variable angle ridge body is available to accept roof pitches between 15° and 45°.

Both designs accommodate 25mm and 32mm polycarbonate or 24mm glass units. Ridge top caps are supplied fully foiled whenever woodgrain finishes are required.

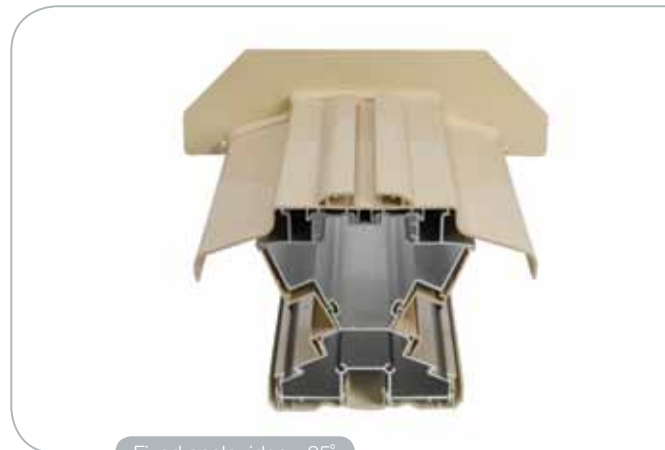
The ridge top capping can be fitted prior to final glazing, making for easy on site access for sealing and lead flashing work. Suitable ridge to wall flashing trims are also supplied as standard.

Combined finial and crestings slide along a captive rail overcoming the need for fixings to pierce through the external ridge top capping, reducing the risk of water ingress.

Eurocell ridges are virtually silicone-free because the ridge has been designed to minimise the reliance on the fitter to obtain a water tight seal, making this roof one of the quickest and easiest to install.



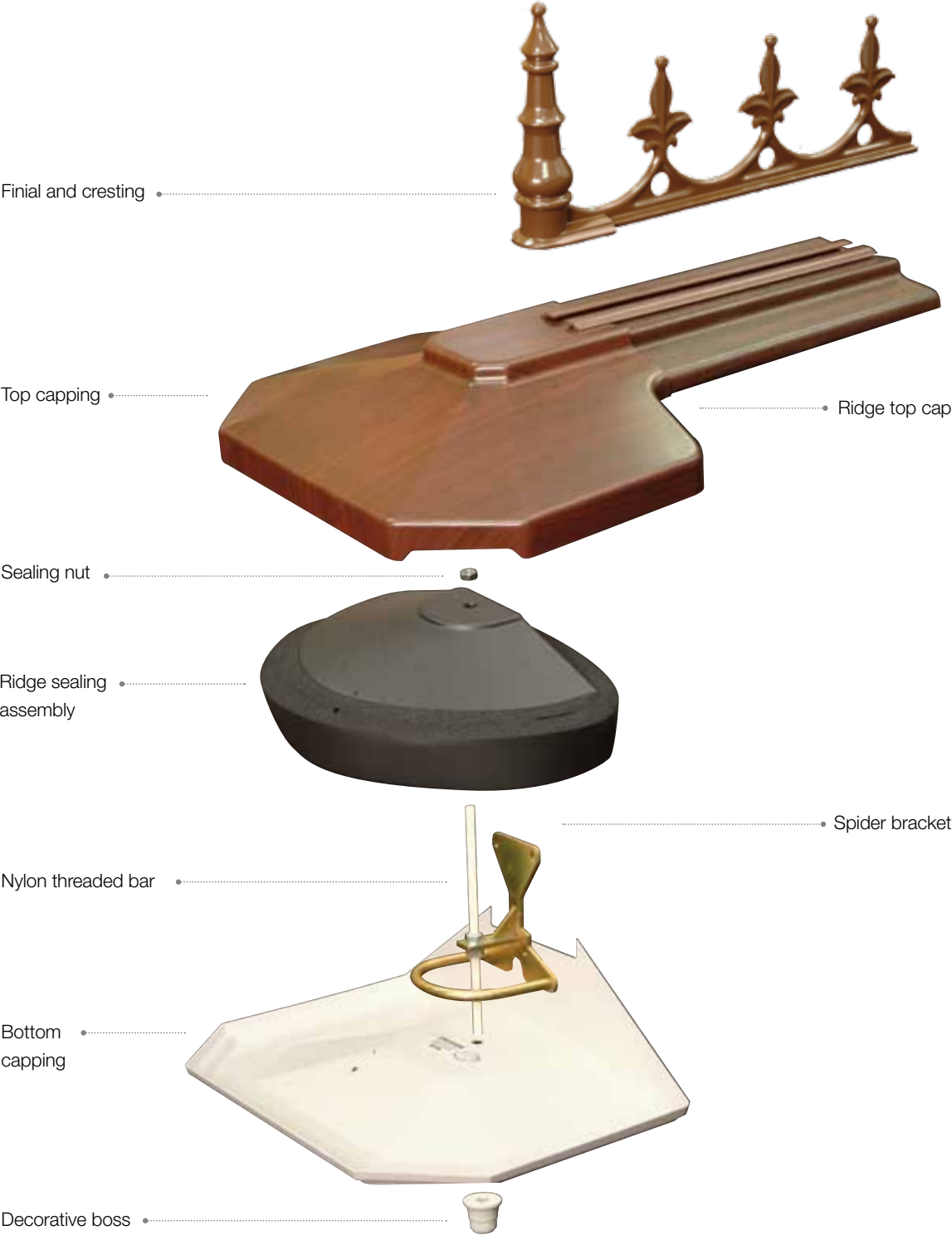
Variable angle ridge (15° - 45°)



Fixed angle ridge - 25°

Ridge radius end assembly

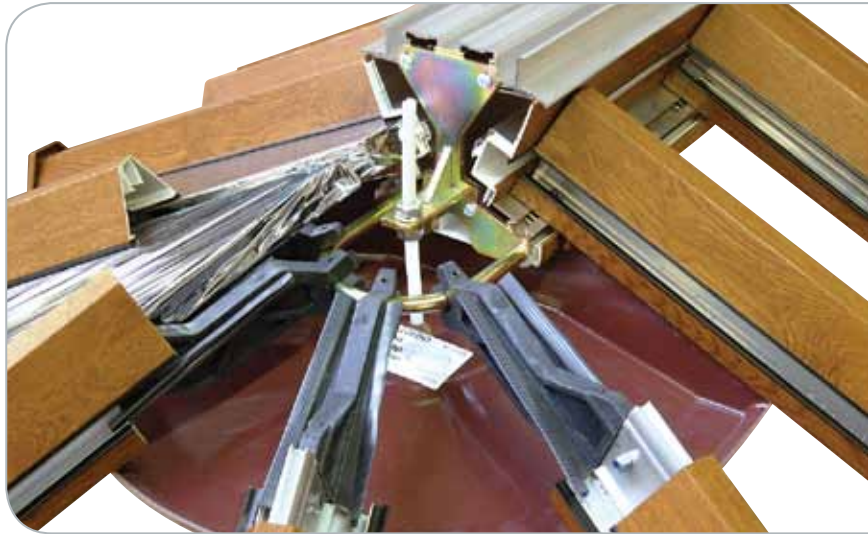
Designed to eliminate the need for silicone sealing around the end of the rafter and hip bars, Eurocell's patented ridge radius end assembly provides a watertight seal that you can trust. This is achieved by bolting a secondary sealing assembly down on top and in front of the glazing panels. A continuous closed cell foam seal surrounds this, which the rafter caps butt up to. This prevents any risk of rainwater or leaves penetrating back inside the ridge end, without the installers having to rely on any silicone for sealing.



Bottom caps

As part of the Eurocell conservatory roof system philosophy of making the installers and fabricators life as easy as possible, bottom caps are produced in three different pitch variants.

This means that when installing or fabricating a standard 25° pitch conservatory no cutting of the bottom cap is required.



Spider bars

Spider end mouldings allow all of the glazing bars fitted onto the front of the ridge to be square cut. These are factory fitted and slide into the end of the rafter bars ready to be hooked over the spider bar bracket, before final tightening of the grub screw.

This method of construction is quick, easy and reliable. To ensure optimum weather performance a patented foam ridge end cover is also provided to minimise any reliance on silicone sealing.





Gable fronted design with front structural support beam

Gable ends

For gable fronted designs, particularly those using French doors under the gable, the option exists of continuing the eaves beam and guttering across the gable end.

This arrangement may also reduce the number of downpipes and soakaways required. The eaves beam will also allow the weight of the overhead gable assembly to be distributed more evenly.

When no guttering is required across a front gable, a dedicated reinforcement beam is available to offer structural support and minimise flex and movement. This improves sightlines.



No gutter - gable structural support beam



Gable with eaves beam and gutter section

Glazing options



Perfect Day conservatory roof glass

Perfect Day glass provides added comfort to maximise conservatory enjoyment throughout the whole year. Its revolutionary dual action self clean coating lasts the lifetime of the glass and is activated by sunlight and rain. Also incorporating Solar Control, which reduces heat build up without costly air conditioning. There are seventeen options available for maximum versatility and choice. See table below for glass specifications:



Glass Specification	Colour	U Value	G Value	Light transmission	True self clean	Warm edge
Perfect Day super 4s	Blue	1.0	28%	41%	✓	✓
Perfect Day super 4s	Neutral	1.0	29%	37%	✓	✓
Perfect Day super 4s	Aqua	1.0	22%	32%	✓	✓
Perfect Day super 4s	Bronze	1.0	34%	42%	✓	✓
Perfect Day super	Blue	1.2	40%	52%	✓	✓
Perfect Day super	Neutral	1.2	40%	45%	✓	✓
Perfect Day super	Aqua	1.2	28%	39%	✓	✓
Perfect Day super	Bronze	1.2	49%	52%	✓	✓
Perfect Day super	Clear	1.2	68%	78%	✓	✓
Perfect Day clean	Blue	2.7	49%	59%	✓	✓
Perfect Day clean	Neutral	2.7	47%	47%	✓	✓
Perfect Day clean	Aqua	2.7	33%	40%	✓	✓
Perfect Day clean	Bronze	2.7	46%	53%	✓	✓
Perfect Day thermal	Blue	1.2	40%	52%	✗	✓
Perfect Day thermal	Neutral	1.2	40%	45%	✗	✓
Perfect Day thermal	Bronze	1.2	51%	54%	✗	✓
Basic clear glass 24mm	Clear	2.8	75%	80%	✗	✗

Basic clear glass, 2 x 4mm clear is shown for comparison purposes

The U-Value is an indication of how well the glass is able to retain warmth within the conservatory.

The lower the U Value, the warmer in winter the conservatory will be.

The G Value shows how much of the sun's radiant energy is allowed to pass into the room.

The lower the G Value, the less risk of overheating during the summer months.

Light Transmission is the percentage of visible light allowed to pass through the glass. Too much light can cause 'glare' but too little can make the room seem dull.

Self Clean indicates a true photocatalytic self cleaning outer surface

Warm Edge spacer dramatically reduces heat loss through to the roof system.

Optional extras

Customise your conservatory designs



MOOD speaker systems installed

MOOD speaker system

At last, a conservatory innovation that end users really care about! MOOD is a fully integrated conservatory speaker system, enabling people to enjoy music in their new room with no trailing wires or bulky speakers. A further option available is to include low voltage LED lights within the decorative cornices.

One of the great advantages of the Eurocell MOOD system is that all the wiring is hidden, helping to make your conservatory a clutter free environment. When you have your new MOOD system installed all you will see is the connection point on your wall and your funky new speakers which seamlessly blend into the conservatory.

All of the work is done in the background with the wiring integrated into the conservatory's structure, completely out of sight and protected. You will never trip over a trailing cable again!

Speaker specification

- 15/30 watts power handling
- 110 - 16000 Hz frequency range
- 8 ohms impedance
- Speakers are available in 90°, 135° or 150° angles to fit any conservatory roof perfectly

Player Requirements

The MOOD speaker system works with any player or amplifier which has a standard speaker cable output.



Before



After



Manual opening roof vent in White with Gold accessories

Roof vents

Roof vents are available with either manual or electric opening mechanisms. Electric vents can be used in conjunction with a climate control system which will automatically open and close the vent as the temperature rises and falls or if rain is sensed by external rain sensor.

Tie wire

The Tie wire is a thin 6mm adjustable stainless steel cable running unbroken across the roof structure. The tie wire is an alternative to the traditional tie bar.



Stainless steel tie wire

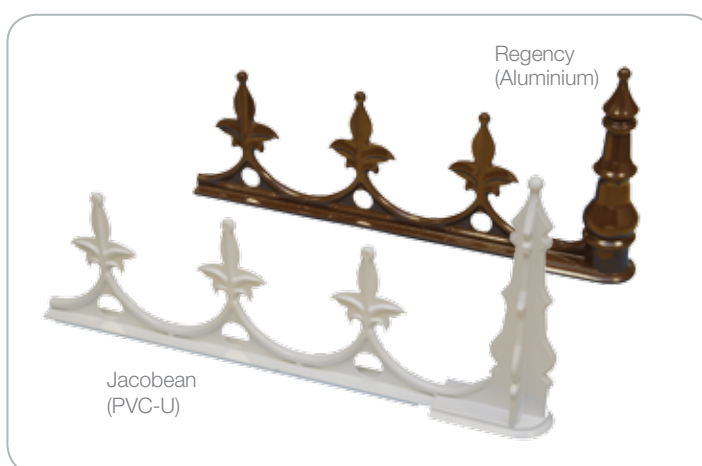
Gallows bracket

Where additional box gutter support is required for particular conservatory roof designs structurally tested gallows brackets are available in either White, Brown, Cream or Caramel.



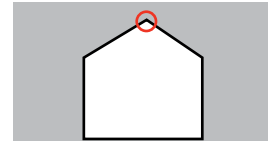
Finials and crestings

Attractive finials and crestings options are available in either aluminium or PVC-U.



Roof height calculator

Roof height chart apex roof designs with ridges

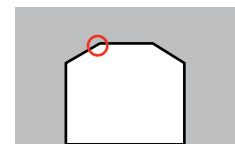


Width							
Pitch	2500	3000	3500	4000	4500	5000	5500
15°	588	655	722	789	856	923	990
20°	708	799	890	981	1072	1163	1254
25°	836	953	1069	1186	1302	1419	1535
30°	975	1119	1263	1408	1552	1696	1841
35°	1128	1303	1478	1653	1828	2003	2178

Height to bottom of ridge = less 173mm

For height including creasting allow a maximum of 170mm

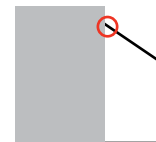
Half ridge wallplate height chart hip ended designs



Projection							
Pitch	2000	2250	2500	2750	3000	3250	3500
15°	789	856	923	990	1057	1124	1191
20°	981	1072	1163	1254	1345	1436	1527
25°	1186	1302	1419	1535	1652	1769	1885
30°	1408	1552	1696	1841	1985	2129	2274
35°	1653	1828	2003	2178	2354	2529	2704
40°	1931	1968	2351	2560	2770	2980	3190

Height to bottom of wallplate = less 173mm

Lean-to wallplate height chart mono pitch designs



Projection					
Pitch	2000	2500	3000	3500	4000
2.5°	360	382	403	425	447
5°	447	491	535	578	622
7.5°	535	601	667	733	799
10°	624	712	801	889	977
12.5°	715	826	936	1047	1158
15°	807	941	1075	1209	1343

Height to bottom of wallplate = less 192mm

Glazing technical data

Glazing options		U value ¹ W/m²K	% Light Transmission
Perfect Day conservatory roof glass 24mm glass (4/16/4)	Perfect Day super Blue	1.2	51%
	Perfect Day super Neutral	1.2	51%
	Perfect Day thermal Blue	1.2	56%
	Perfect Day thermal Neutral	1.1	58%
	Perfect Day clean Blue	2.7	53%
	Perfect Day clean Neutral	2.7	53%
Polycarbonate 32mm seven wall	Clear	1.4	59%
	Opal	1.4	11%
	Bronze	1.4	13%
	Bronze/opal	1.4	15%
	Solar control	1.4	7%
Polycarbonate 25mm five wall	Clear	1.7	62%
	Opal	1.7	14%
	Bronze	1.7	17%
	Bronze/Opal	1.7	17%
	Solar control	1.7	7%
Typical standard toughened 24mm glass (4/16/4)	Clear	2.7	81%

The values shown above are provided for guide purposes only, and are subject to variation caused by seasonal changes and other factors.

¹ U Value is a measure of thermal efficiency; the lower the figure the more thermally efficient.

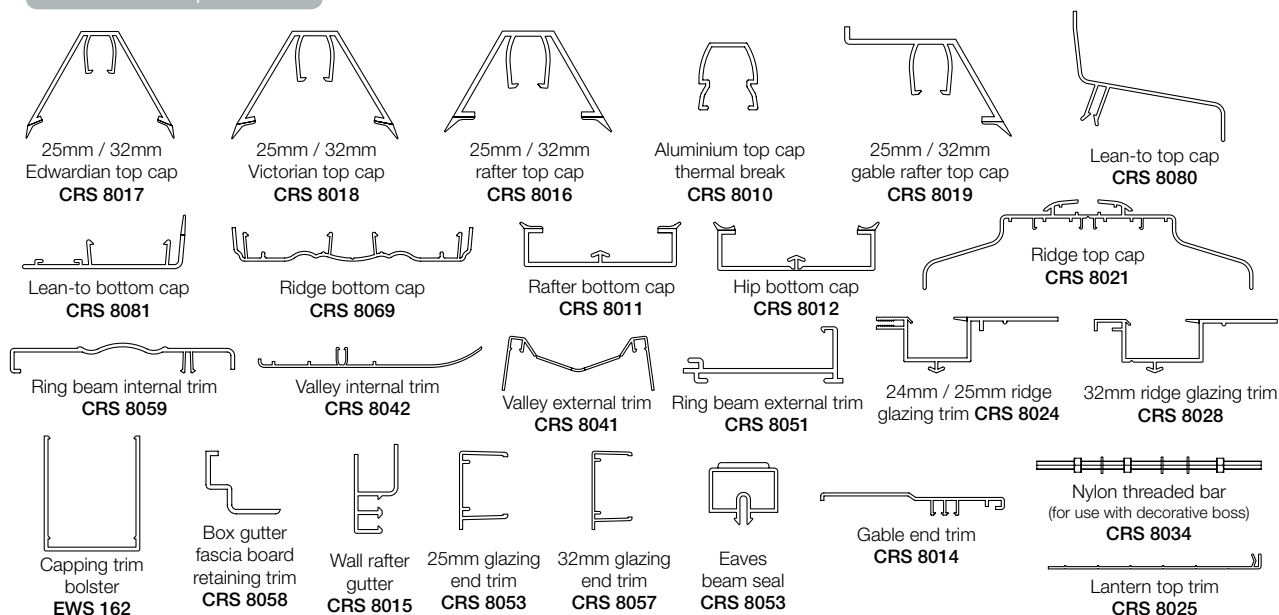
(Note - The above information is for guidance purposes only and Eurocell cannot accept responsibility for the way in which it is used or interpreted. As part of our ongoing policy of continuous development, Eurocell reserves the right to change and amend product details and specifications without prior notice.)



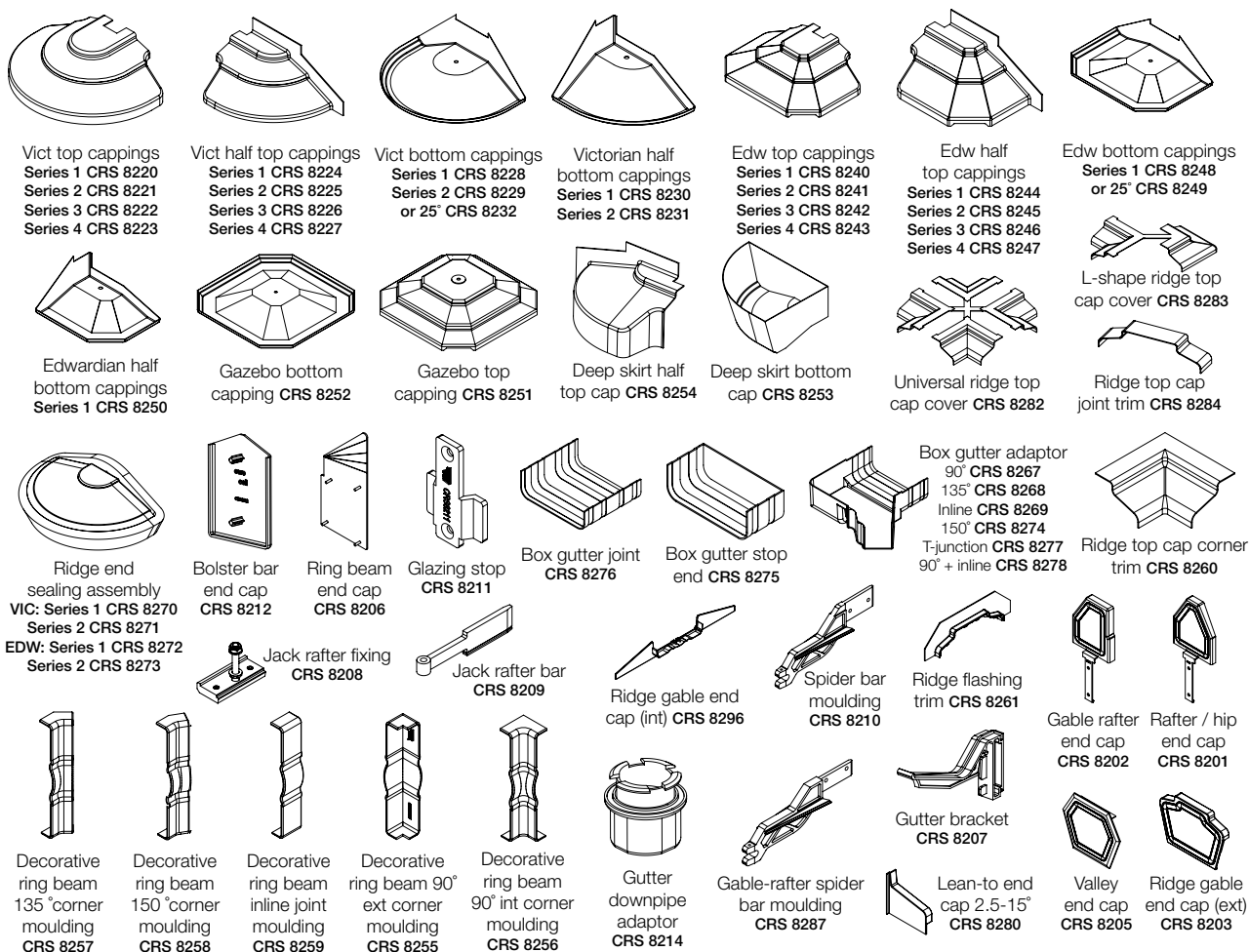
Eurocell conservatory roof system

Product chart

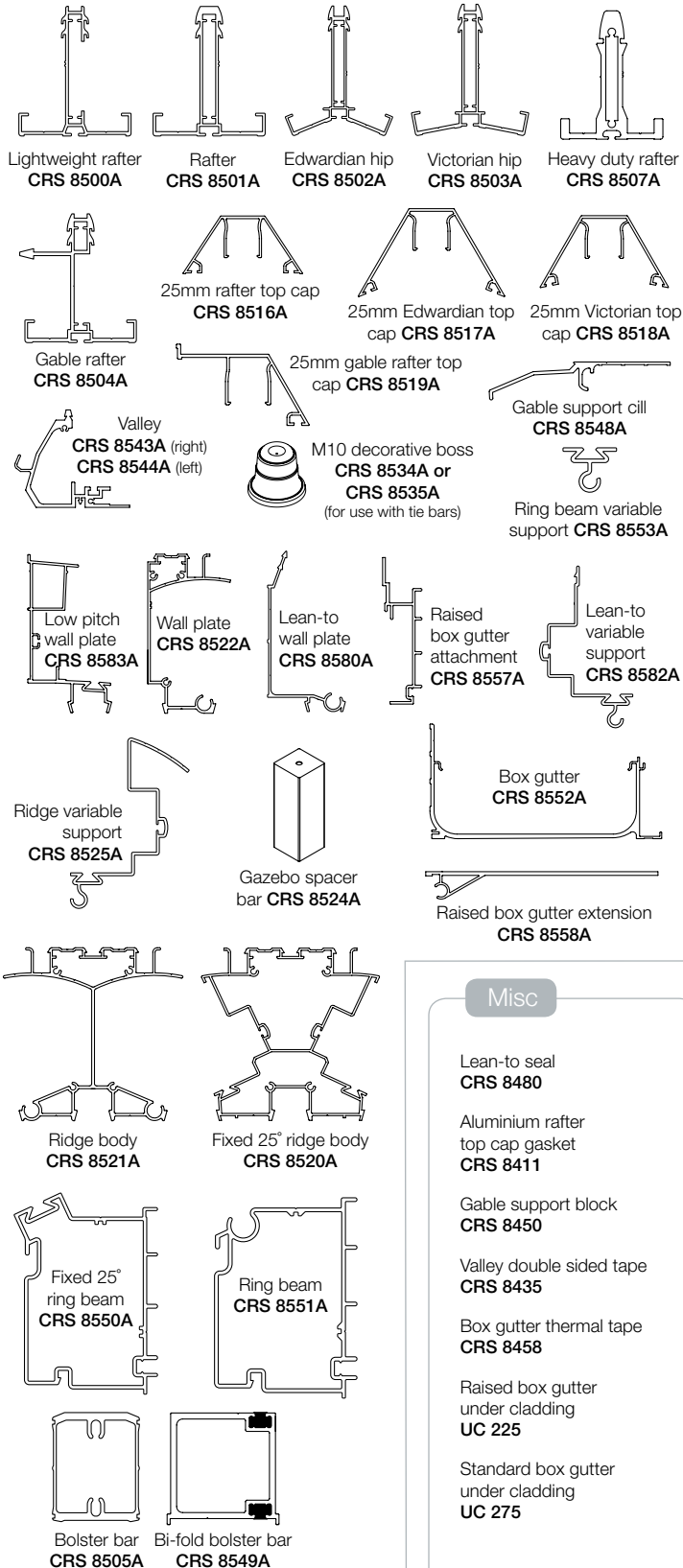
PVC-U components



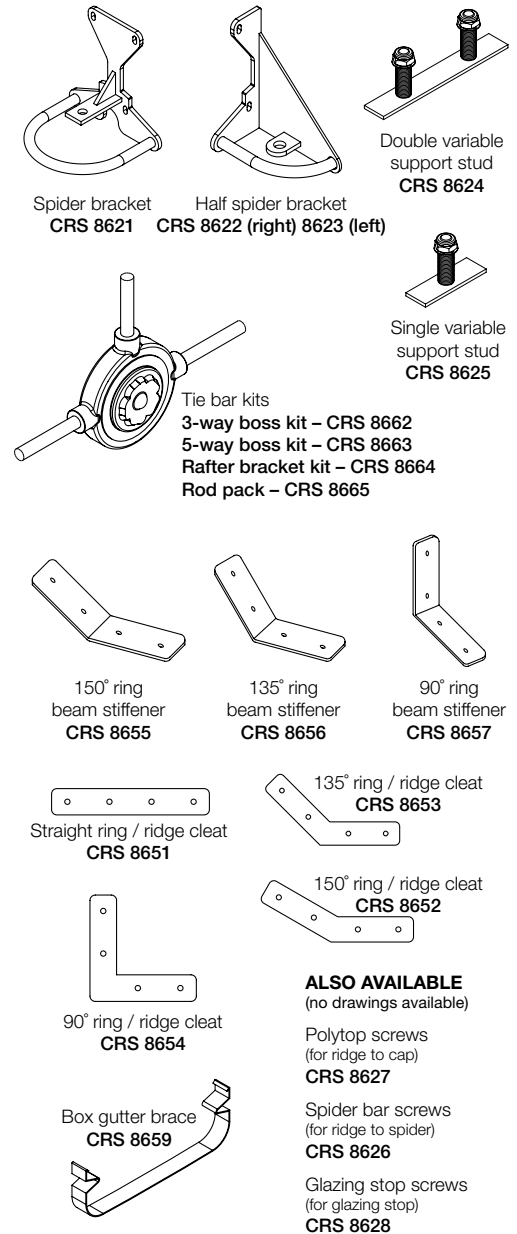
Mouldings and other components



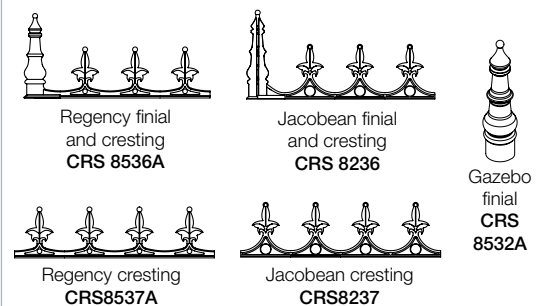
Aluminium components



Steel components



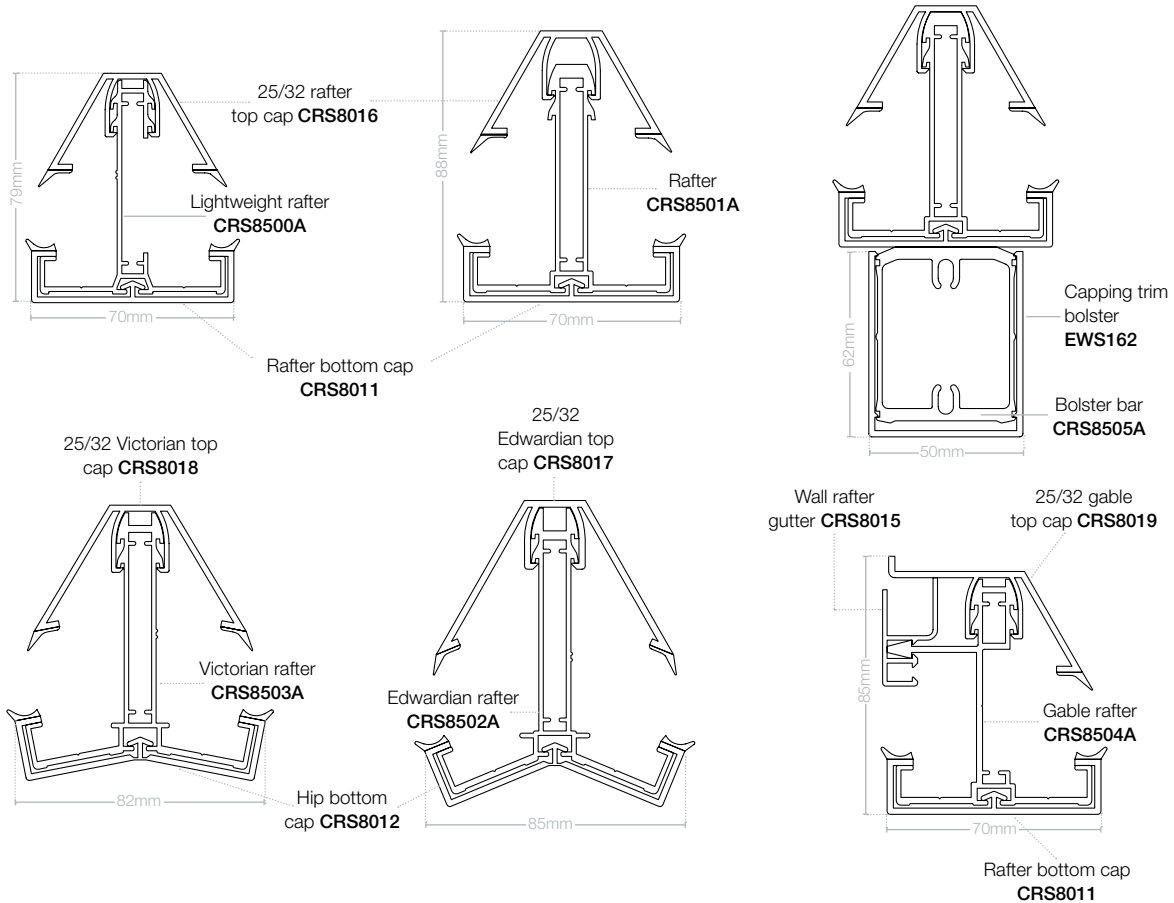
Finials and crestsings



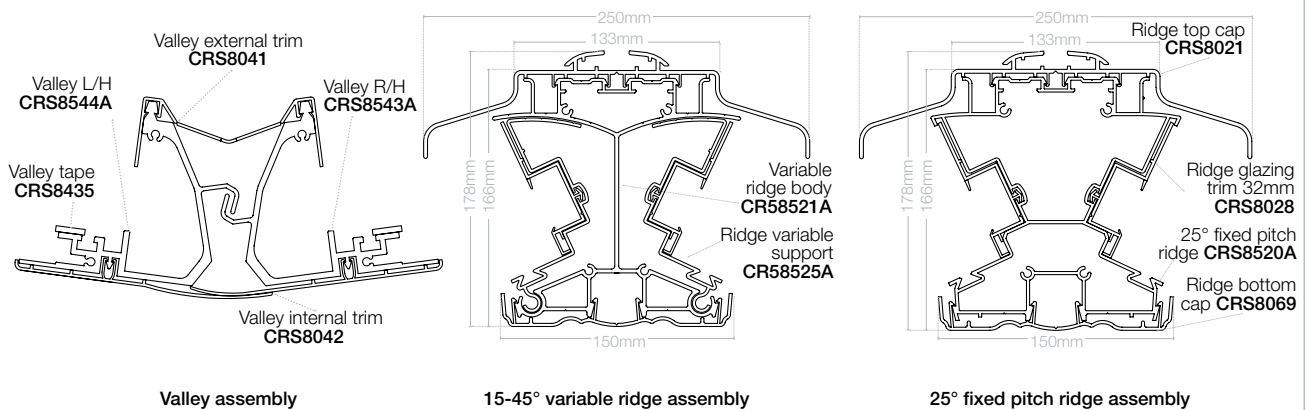
Eurocell conservatory roof system

Main assemblies

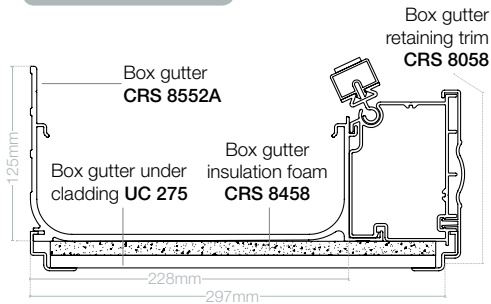
Rafter and hip assemblies



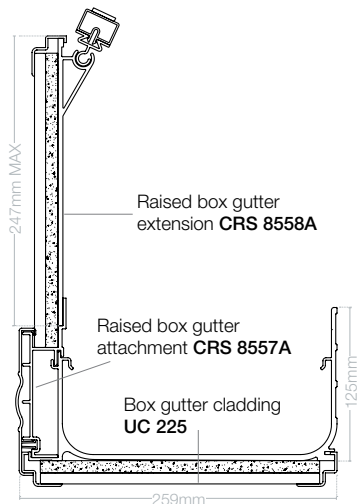
Valley and ridge assemblies



Box gutters

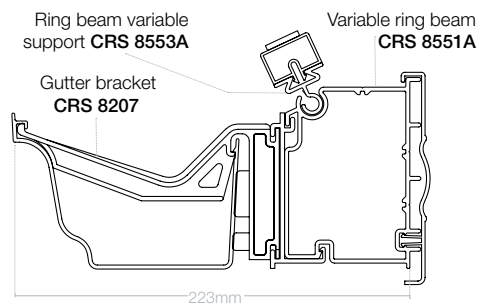


Box gutter assembly

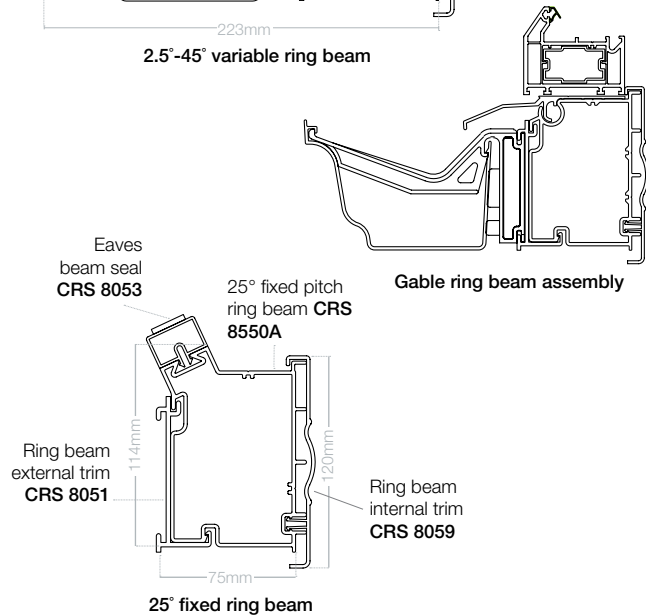


Raised back box gutter assembly

Ring beams



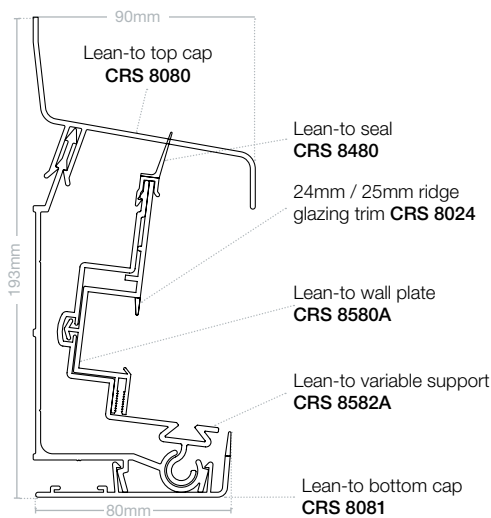
2.5°-45° variable ring beam



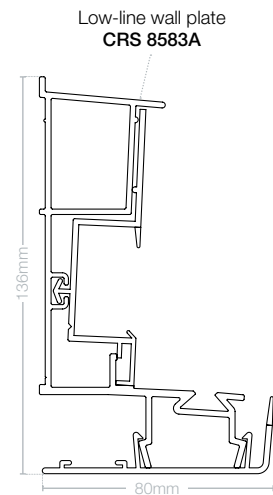
25° fixed ring beam

Gable ring beam assembly

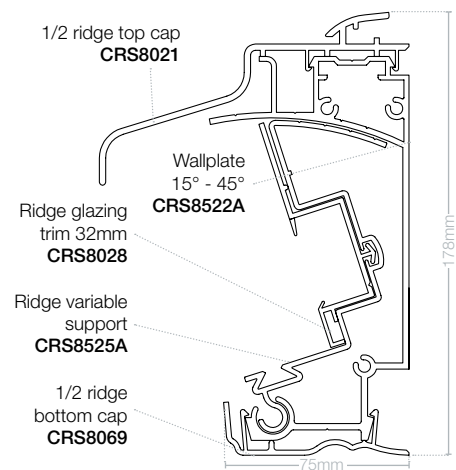
Lean-to wallplates



2.5°-15° lean-to wallplate assembly



2.5°-5° low-line wallplate assembly



15°-45° lean-to wallplate assembly