SURVEY NOTES

A GUIDE TO SURVEYING FOR A CONSERVATORY INSTALLATION

The process of surveying for conservatories is vastly different to that of surveying for window installations and great care must be taken to avoid potential problems and additional costs when the installer arrives on site.

Any potential problems or obstructions must be considered in three dimensions, both above and below. Take note of all above ground drainage such as manholes, rainwater pipes, soil pipes and gullies and attempt to ascertain from these the route of below ground drainage as any drains passing under the conservatory must be exposed and encased in 150mm of concrete.

Another area to consider is that of ventilation both to habitable rooms and under suspended timber floors. Any underfloor ventilation must be maintained as this is necessary to prevent rotting of structural timbers. This can be easily achieved by the use of 100mm dia pipes encased in the conservatory floor which provide an air duct to the original vents. Building over openings which provide the only ventilation to habitable rooms or most especially bathrooms and kitchens not only contravenes the Building Regulations but will lead to increased condensation within the building and consideration must be given to the provision of additional ventilation.

Height obstructions such as first floor windows, soffits and overhead telephone wires are fairly obvious considerations but there are other heights and levels which must be taken into account, particularly floor levels and ground levels if the building work is to be priced accurately from the survey.

After carrying out the survey to the area where the conservatory is to be installed, it is then necessary to familiarise yourself with the rest of the site and its surroundings.

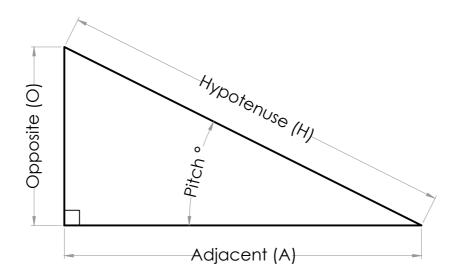
Firstly, are there any mature trees on site. It may be that the tree trunk is sited some distance from the proposed conservatory but take note of the branch spread as it is likely that the root spread will be of a similar size, possibly causing problems with the foundation excavation. It should be noted that it is necessary to apply for planning permission should any trees need to be felled.

The second consideration should be that of access, particularly if a large amount of building work is required. The labour cost will obviously be higher if all materials need to be manhandled through narrow openings in small quantities.

Lastly, it is prudent to check whether planning consent or building regulation approval is required so that an application can be made in good time. whilst on site the surveyor should check to see whether the house has been previously extended and the size of such extensions as well as the relationship of the conservatory to the boundaries and highways so that the information can be compared with the requirements given in the "Planning and Building Regulations" Section of this manual.







$$O = A x tan P$$

$$A = O \div tan P$$

$$O = H \times sin P$$

$$H = O \div \sin P$$

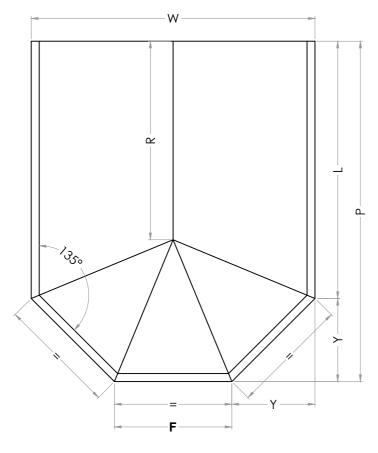
$$A = H \times cos P$$

$$H = A \div \cos P$$





BASIC TRIGONOMETRY CALCULATIONS



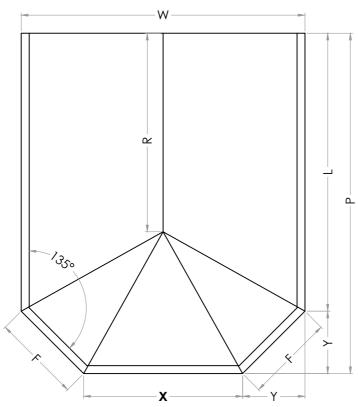
- W Width
- Projection (overall)
- Facet Width
- Return
- Ridge
- Facet Width (to be determined)

135° Facet Angles

$$F = W \div 2.4142$$

$$Y = F \div 1.4142$$

$$L = P - Y$$



135° Facet Angles

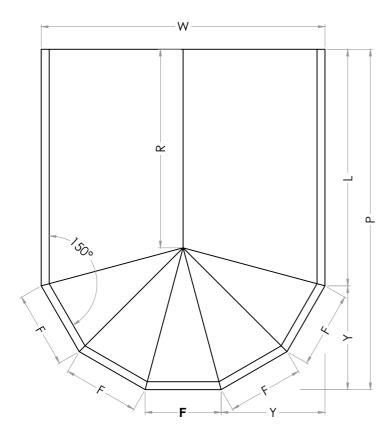
$$Y = \frac{W - X}{2}$$

$$F = Y \times 1.4142$$

$$L = P - Y$$



BASIC TRIGONOMETRY CALCULATIONS



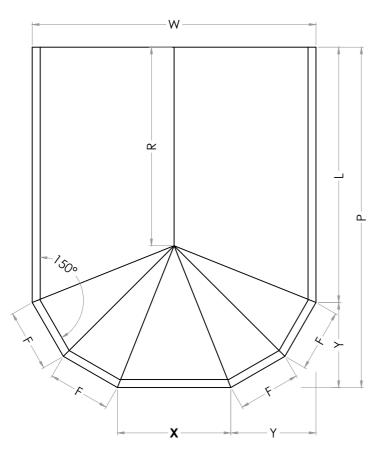
- W Width
- Projection (overall)
- Facet Width
- Return
- Ridge
- Facet Width (to be determined)

150° Facet Angles (equal Facets)

$$F = W \div 2.679$$

$$Y = W \times 0.36575$$

$$L = P - Y$$



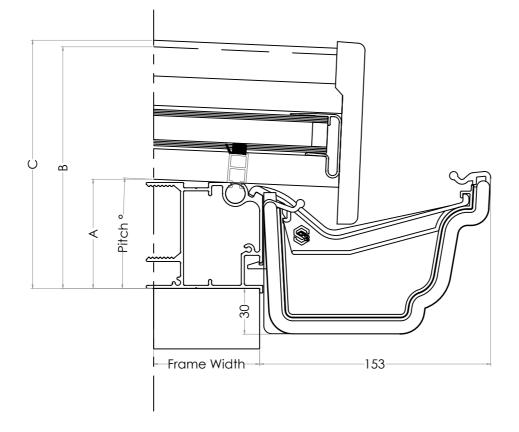
150° Facet Angles (Unequal Facets)

$$Y = \frac{W - X}{2}$$

$$F = Y \times 0.7325$$

$$L = P - Y$$





Pitch	n Fran A 72	nes B 159	C			
5° 7.5° 10°	74 76 78	161 164 167	166 169 171			
65mm Frames						

65mm Frames							
Pitch	Α	В	С				
2.5°	72	160	164				
5°	74	162	166				
7.5°	76	165	169				
10°	79	168	172				

70mm Frames						
Pitch	Α	В	С			
2.5°	72	160	164			
5°	74	162	167			
7.5°	77	165	170			
10°	80	168	173			

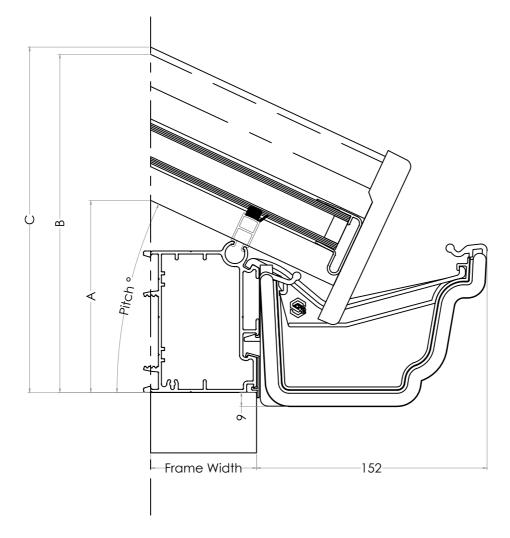
A = Underside of Eaves Beam to underside of Glazing Bar

B = Underside of Eaves Beam to Top of Glazing Bar Top Cap (Single Wall)

C = Underside of Eaves Beam to Top of Glazing Bar Top Cap (Chambered)







60mm Frames						
Pitch	Α	В	С			
5°	104	192	196			
10°	108	197	201			
15°	112	202	207			
20°	116	209	214			
25°	121	217	222			
30°	127	228	233			
35°	133	240	246			
37.5°	137	247	253			

65mm rrames						
Α	В	С				
104	192	197				
109	198	202				
113	204	209				
118	211	216				
123	220	225				
129	230	236				
136	243	249				
140	251	257				
	A 104 109 113 118 123 129 136	A B 104 192 109 198 113 204 118 211 123 220 129 230 136 243				

/umm rrames						
Pitch	Α	В	С			
5°	105	193	197			
10°	110	198	203			
15°	115	205	210			
20°	120	213	218			
25°	125	222	227			
30°	132	233	239			
35°	140	247	253			
37.5°	144	255	260			

A = Underside of Eaves Beam to underside of Glazing Bar

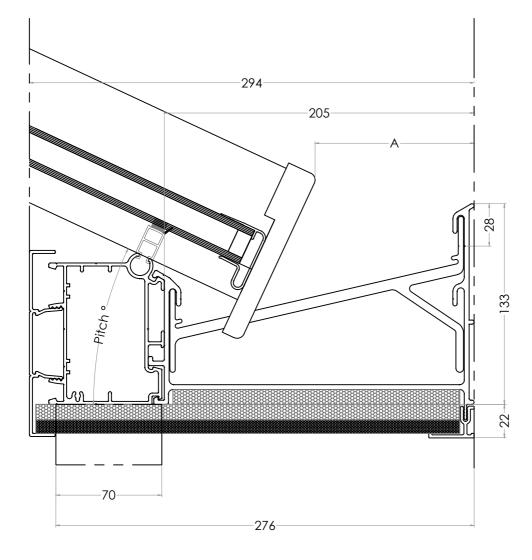
B = Underside of Eaves Beam to Top of Glazing Bar Top Cap (Single Wall)

C = Underside of Eaves Beam to Top of Glazing Bar Top Cap (Chambered)





EAVES BEAM & BOX GUTTER

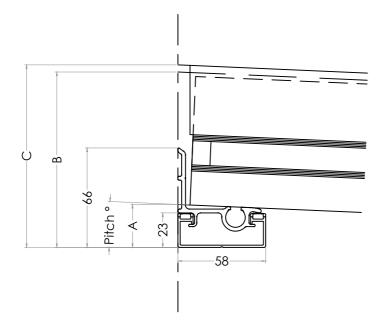


Pitch	Α
5°	131
10°	123
15°	116
20°	110
25°	104
30°	99
35°	95
37.5°	93

W = Host Wall/Fascia to Glazing Bar End Cap







SKA-5004 Lightweight Wallplate

Pitch	Α	В	С
2.5°	28	116	121
3.0°	29	116	121
3.5°	29	117	122
4.0°	30	117	122
4.5°	30	118	123
5.0°	31	118	123
6.0°	31	119	124
7.0°	32	120	125
8.0°	33	121	126
9.0°	34	123	127
10.0°	35	124	129
11.0°	36	125	130
12.0°	37	126	131
13.0°	38	128	132
14.0°	39	129	134
15.0°	40	130	135

A = Underside Wallplate Bottom Cap to underside of Glazing Bar

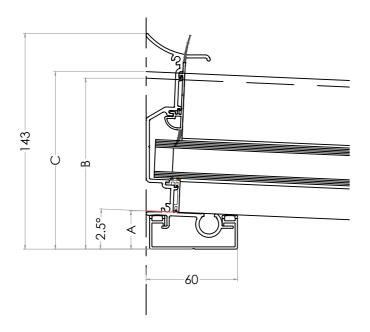
B = Underside Wallplate Bottom Cap to Glazing Bar Top Cap (Single Walled)

C = Underside Wallplate Bottom Cap to Glazing Bar Top Cap (Chambered)





FIXED PITCH WALL PLATES



SKA-5039 2.5° Fixed Pitch Wallplate

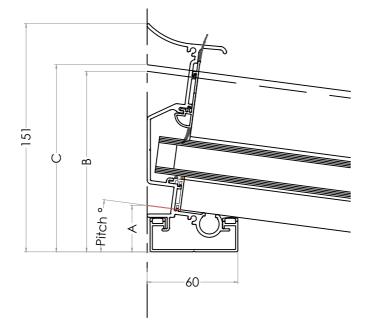
Pitch	Α	В	С	
2.5°	25	113	118	
3.0°	26	113	118	*
3.5°	26	114	118	*
4.0°	27	115	119	*
4.5°	27	115	119	*
5.0°	27	115	120	*

 Bottom Cloaking Trim Gasket - NO contact with underside of glazing.

A = Underside Glazing Bar Bottom Cap to underside of Glazing Bar

B = Underside Glazing Bar Bottom Cap to Glazing Bar Top Cap (Single Walled)

C = Underside Glazing Bar Bottom Cap to Glazing Bar Top Cap (Chambered)



SKA-5127 5-10° Fixed Pitch Wallplate

Pitch	Α	В	С
5.0°	29	117	122
5.5°	29	117	122 *
6.0°	30	118	122 *
6.5°	30	118	123 *
7.0°	30	119	123 *
7.5°	31	119	124 *
8.0°	31	119	124 *
8.5°	31	120	125 *
9.0°	32	120	125 *
9.5°	32	121	126 *
10.0°	32	121	126 *

 Bottom Cloaking Trim Gasket - NO contact with underside of glazing.

A = Underside Glazing Bar Bottom Cap to underside of Glazing Bar

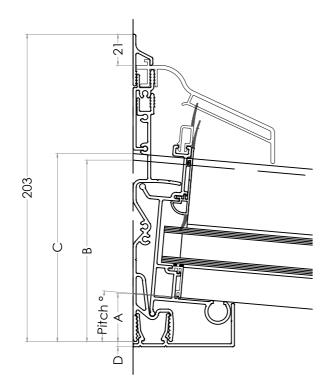
B = Underside Glazing Bar Bottom Cap to Glazing Bar Top Cap (Single Walled)

C = Underside Glazing Bar Bottom Cap to Glazing Bar Top Cap (Chambered)





HALF RIDGE WALL PLATES



SKA-5135 Universal Wing (5-17.5°)

Pit	tch A	4	В	С	D	
5.	0° 3	32	120	124	3	* SKP-6073
10	.0° 3	33	122	127	8	* SKP-6073
15	.0° 3	34	125	130	3	* SKP-6072
17	'.5° 3	35	127	132	3	* SKP-6072

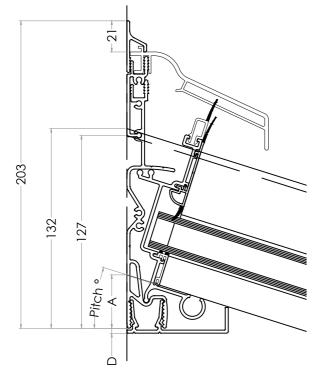
* Half Ridge Wallplate Undercladding

A = Underside Wallplate to underside of Glazing Bar

B = Underside Wallplate to Glazing Bar Top Cap (Single Walled)

C = Underside Wallplate to Glazing Bar Top Cap (Chambered)

D = Underside Wallplate to underside of Undercladding



SKA-5123 Universal Wing (17.5-30°)

Pitch	Α	В	С	D	
17.5°	35	127	132	3	* SKP-6072
20.0 °	36	129	132	6	* SKP-6072
25.0 °	38	134	139	11	* SKP-6072
30.0°	40	141	146	16	* SKP-6072

* Half Ridge Wallplate Undercladding

A = Underside Wallplate to underside of Glazing Bar

B = Underside Wallplate to Glazing Bar Top Cap (Single Walled)

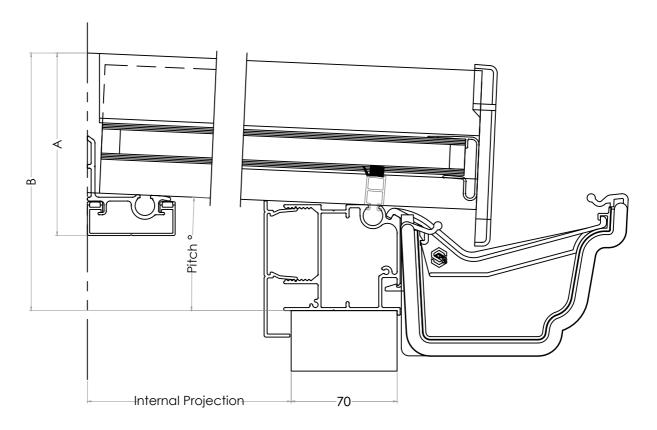
C = Underside Wallplate to Glazing Bar Top Cap (Chambered)

D = Underside Wallplate to underside of Undercladding





LIGHTWEIGHT WALL PLATE & LOW PITCH EAVES BEAM



	Projection									
Pitch	2000		2500		3000		3500		4000	
	Α	В	Α	В	Α	В	Α	В	Α	В
2.5°	121	252	121	274	121	295	121	317	121	339
3.0°	121	270	121	296	121	322	121	348	121	375
3.5°	122	288	122	318	122	349	122	379	122	410
4.0 °	122	306	122	341	122	376	122	411	122	446
4.5°	123	324	123	363	123	403	123	442	123	481
5.0°	123	342	123	386	123	429	123	473	123	517
6.0°	124	378	124	431	124	483	124	536	124	588
7.0 °	125	415	125	476	125	537	125	599	125	660
8.0°	126	451	126	522	126	592	126	662	126	732
9.0°	127	488	127	567	127	646	127	726	127	805
10.0°	129	525	129	613	129	701	129	790	129	878

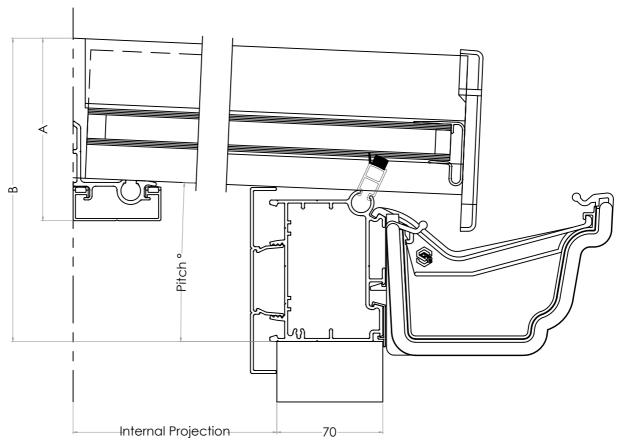
A= Underside of Wallplate Bottom Cap to Top of Glazing Bar Top Cap (Chambered)
B= Underside of Eaves Beam to Top of Glazing Bar Top Cap (Chambered)

Projection examples shown for quick calculation only, Bar specifiction to be checked and confirmed









Projection										
Pitch	2000		2500		3000		3500		4000	
	Α	В	Α	В	Α	В	Α	В	Α	В
2.5°	121	282	121	304	121	326	121	347	121	369
3.0°	121	300	121	326	121	352	121	379	121	405
3.5°	122	318	122	349	122	379	122	410	122	440
4.0 °	122	336	122	371	122	406	122	441	122	476
4.5°	123	354	123	393	123	433	123	472	123	512
5.0°	123	372	123	416	123	460	123	503	123	547
6.0°	124	409	124	461	124	514	124	566	124	619
7.0 °	125	445	125	506	125	568	125	629	125	691
8.0°	126	482	126	552	126	622	126	693	126	763
9.0°	127	519	127	598	127	677	127	756	127	835
10.0°	129	556	129	644	129	732	129	820	129	908

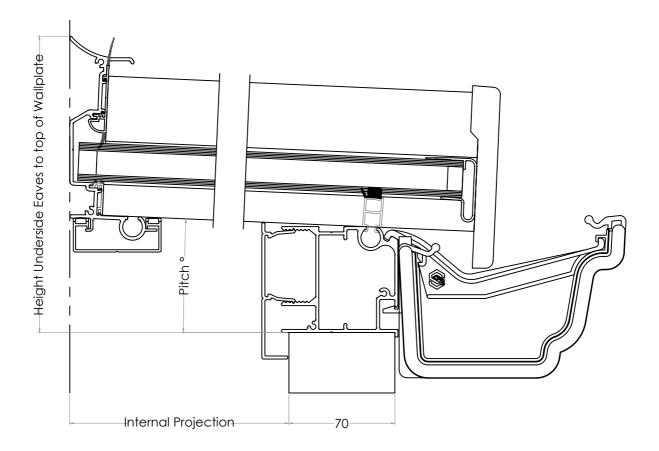
A= Underside of Wallplate Bottom Cap to Top of Glazing Bar Top Cap (Chambered) B= Underside of Eaves Beam to Top of Glazing Bar Top Cap (Chambered)

Projection examples shown for quick calculation only, Bar specifiction to be checked and confirmed





2.5° FIXED PITCH WALL PLATE & LOW PITCH EAVES BEAM



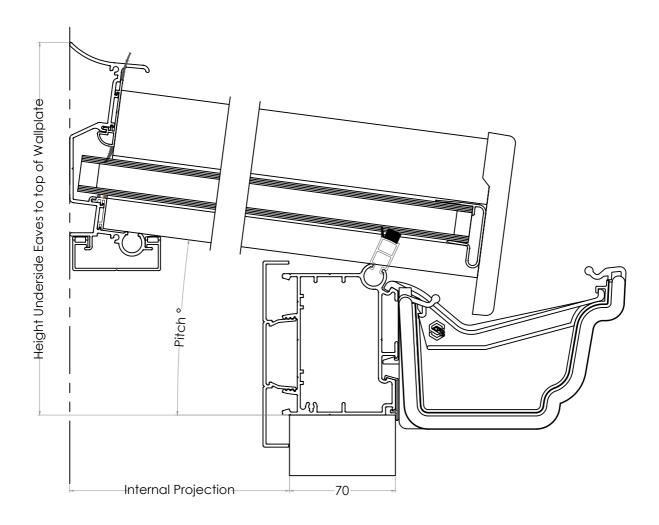
	Projection							
Pitch	2000	2500	3000	3500	4000			
2.5°	277	299	321	342	364			
3.0°	294	321	347	373	399			
3.5°	312	343	373	404	434			
4.0°	330	365	400	435	470			
4.5°	347	387	426	465	505			
5.0 °	365	409	453	496	540			
2.5° 3.0° 3.5° 4.0° 4.5°	277 294 312 330 347	299 321 343 365 387	321 347 373 400 426	342 373 404 435 465	364 399 434 470 508			

Projection examples shown for quick calculation only, Bar specifiction to be checked and confirmed





5-10° FIXED PITCH WALL PLATE & EAVES BEAM



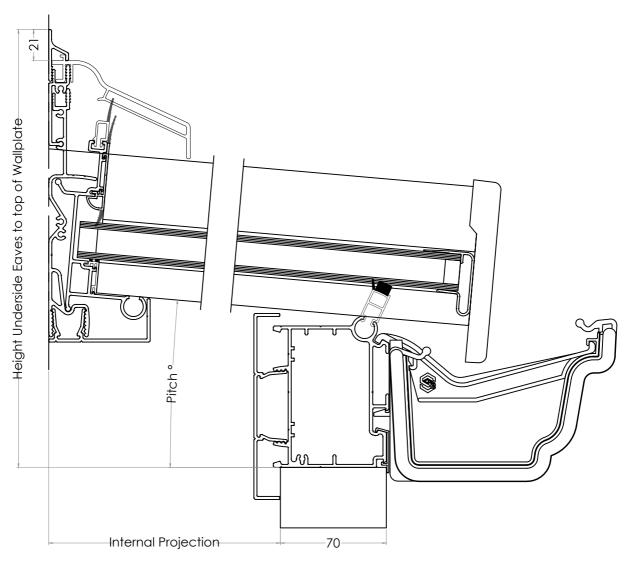
Projection							
Pitch	2000	2500	3000	3500	4000		
5.0°	402	445	489	533	577		
5.5°	419	467	516	564	612		
6.0°	437	490	542	595	647		
6.5°	455	512	569	626	683		
7.0 °	473	534	595	657	718		
7.5°	491	556	622	886	754		
8.0°	509	579	649	719	790		
8.5°	526	601	676	751	825		
9.0°	544	624	703	782	861		
9.5°	563	646	730	814	897		
10.0°	581	669	757	845	933		

Projection examples shown for quick calculation only, Bar specifiction to be checked and confirmed





5-17.5° HALF RIDGE WALL PLATE & EAVES BEAM



Projection							
Pitch	2000	2500	3000	3500	4000		
5.0°	453	497	541	585	628		
10.0°	633	721	809	897	985		
15.0°	819	953	1087	1221	1355		
17.5°	904	1062	1220	1377	1535		

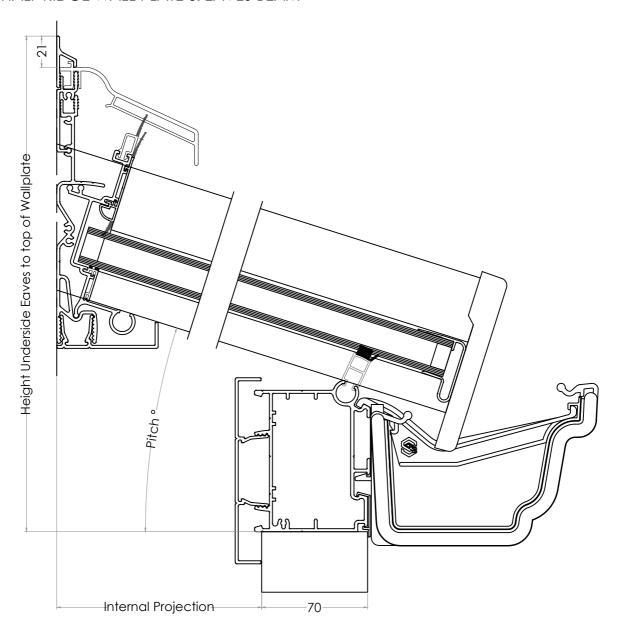
Projection examples shown for quick calculation only, Bar specifiction to be checked and confirmed

Half Ridge Wallplate assembly may be different to the one shown





17.5-30° HALF RIDGE WALL PLATE & EAVES BEAM



Projection							
Pitch	2000	2500	3000	3500	4000		
17.5°	904	1062	1220	1377	1535		
20.0 °	1001	1183	1365	1547	1729		
25°	1208	1441	1487	1720	1953		
30°	1435	1724	2012	2301	2590		

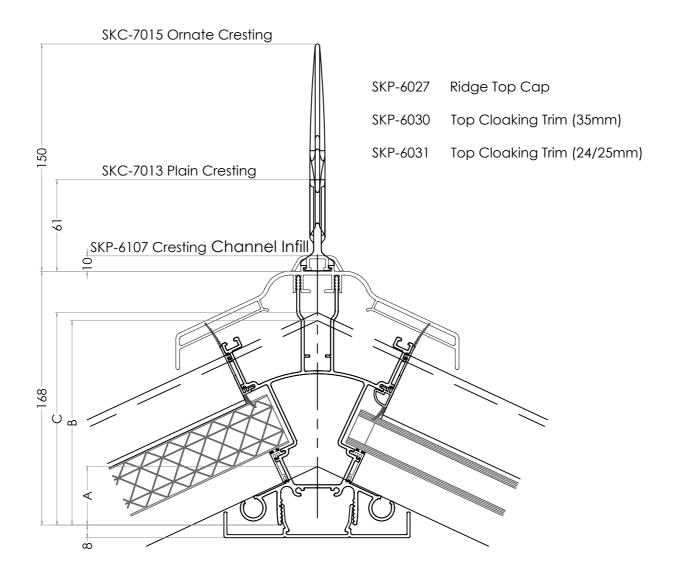
Projection examples shown for quick calculation only, Bar specifiction to be checked and confirmed

Half Ridge Wallplate assembly may be different to the one shown





25° FIXED PITCH RIDGE



SKA-5041 25° Fixed Pitch Ridge

Pitch	Α	В	С
25.0°	32	120	124
27.5°	33	122	127

A = Underside Wallplate to underside of Glazing Bar

B = Underside Wallplate to Glazing Bar Top Cap (Single Walled)

C = Underside Wallplate to Glazing Bar Top Cap (Chambered)

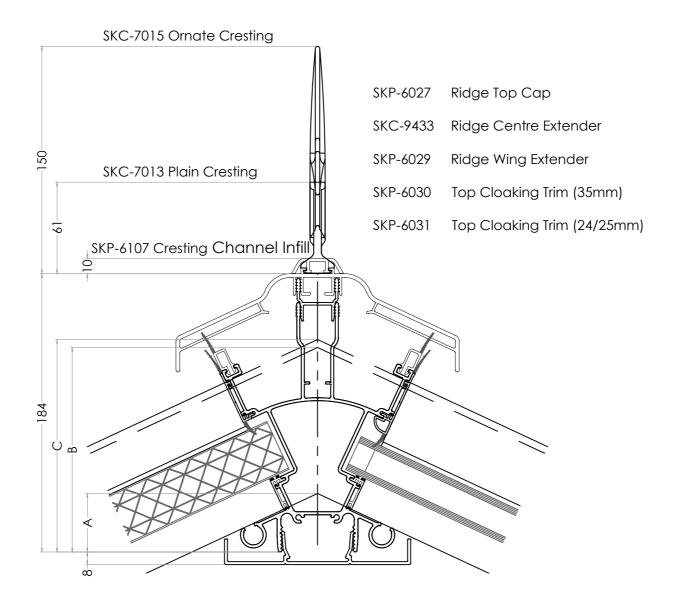
Illustration showing two glazing options:

35mm Polycarbonate
24mm Double Glazed Glass Units (25mm Polycarbonate)





25° FIXED PITCH RIDGE (Extended)



SKA-5041 25° Fixed Pitch Ridge

Pitch	Α	В	С
25.0°	32	120	124
27.5°	33	122	127

A = Underside Wallplate to underside of Glazing Bar

B = Underside Wallplate to Glazing Bar Top Cap (Single Walled)

C = Underside Wallplate to Glazing Bar Top Cap (Chambered)

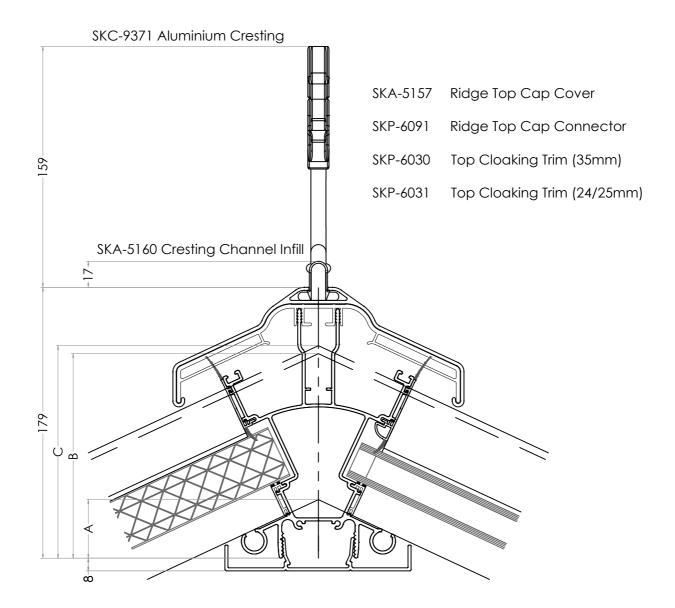
Illustration showing two glazing options:

35mm Polycarbonate
24mm Double Glazed Glass Units (25mm Polycarbonate)





25° FIXED PITCH RIDGE (Aluminium)



SKA-5041 25° Fixed Pitch Ridge

Pitch	Α	В	С
25.0°	32	120	124
27.5°	33	122	127

A = Underside Wallplate to underside of Glazing Bar

B = Underside Wallplate to Glazing Bar Top Cap (Single Walled)

C = Underside Wallplate to Glazing Bar Top Cap (Chambered)

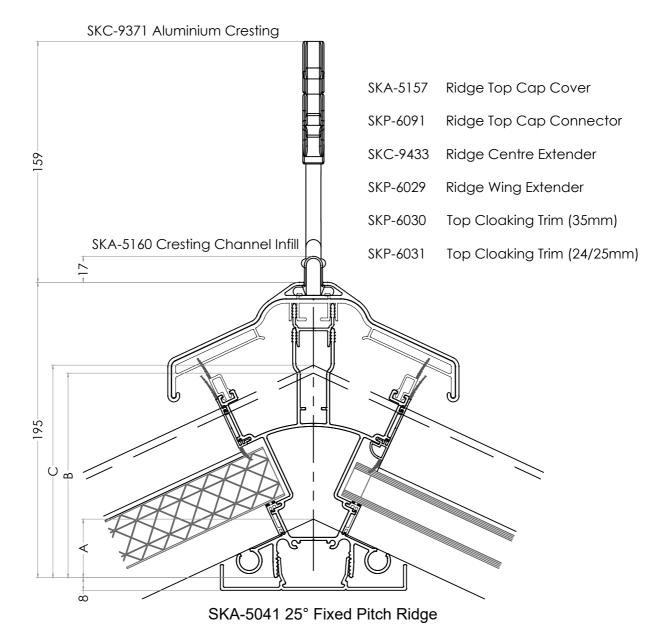
Illustration showing two glazing options:

35mm Polycarbonate
24mm Double Glazed Glass Units (25mm Polycarbonate)





25° FIXED PITCH RIDGE (Aluminium & Extended)



Pitch A B C 25.0° 32 120 124

27.5° 33 122 127

A = Underside Wallplate to underside of Glazing Bar

B = Underside Wallplate to Glazing Bar Top Cap (Single Walled)

C = Underside Wallplate to Glazing Bar Top Cap (Chambered)

Illustration showing two glazing options:

35mm Polycarbonate
24mm Double Glazed Glass Units (25mm Polycarbonate)





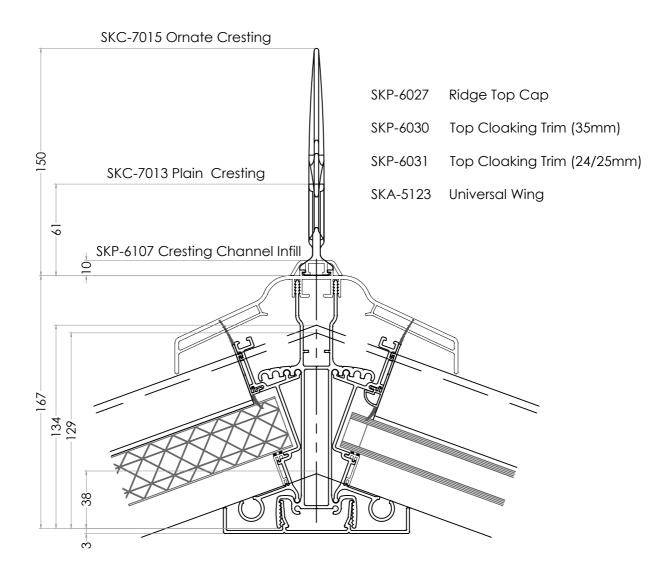


Illustration showing two glazing options:

35mm Polycarbonate 24mm Double Glazed Glass Units (25mm Polycarbonate)





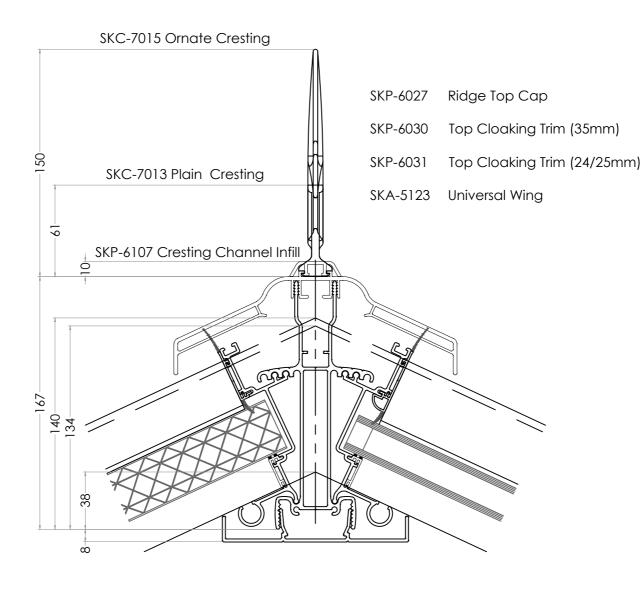


Illustration showing two glazing options:

35mm Polycarbonate 24mm Double Glazed Glass Units (25mm Polycarbonate)





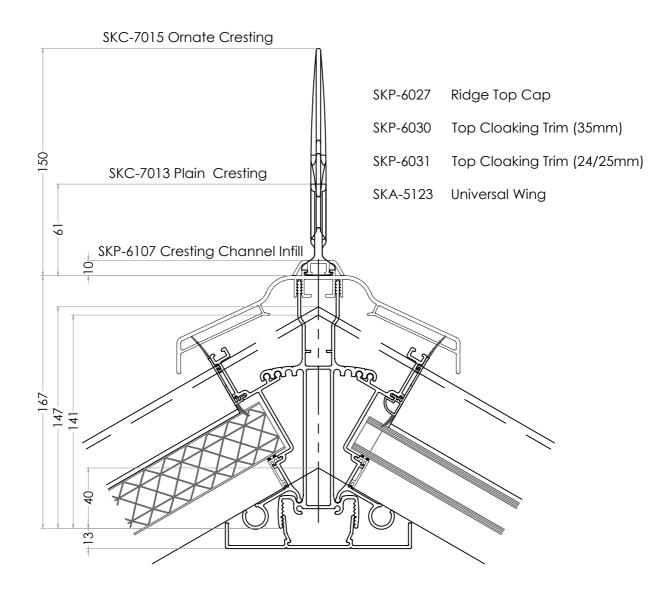


Illustration showing two glazing options:

35mm Polycarbonate
24mm Double Glazed Glass Units (25mm Polycarbonate)





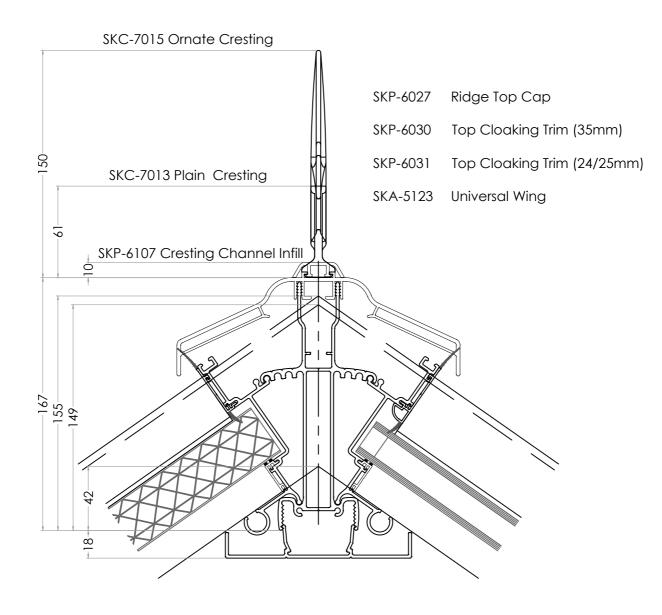


Illustration showing two glazing options:

35mm Polycarbonate 24mm Double Glazed Glass Units (25mm Polycarbonate)





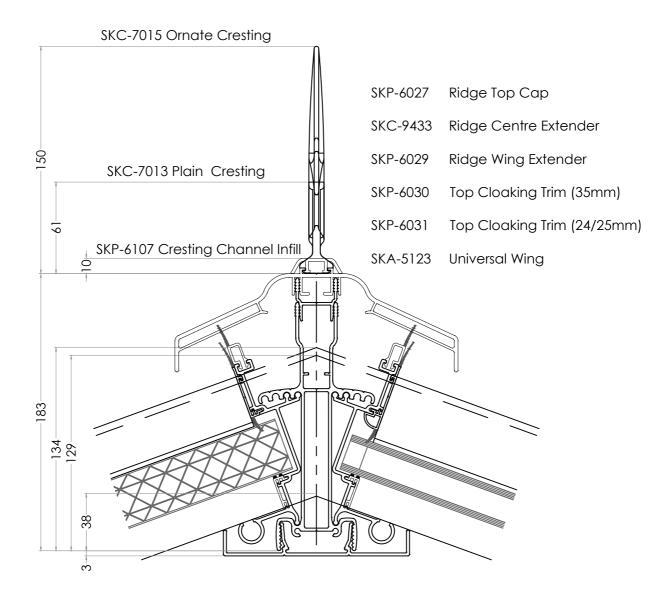


Illustration showing two glazing options:

35mm Polycarbonate 24mm Double Glazed Glass Units (25mm Polycarbonate)





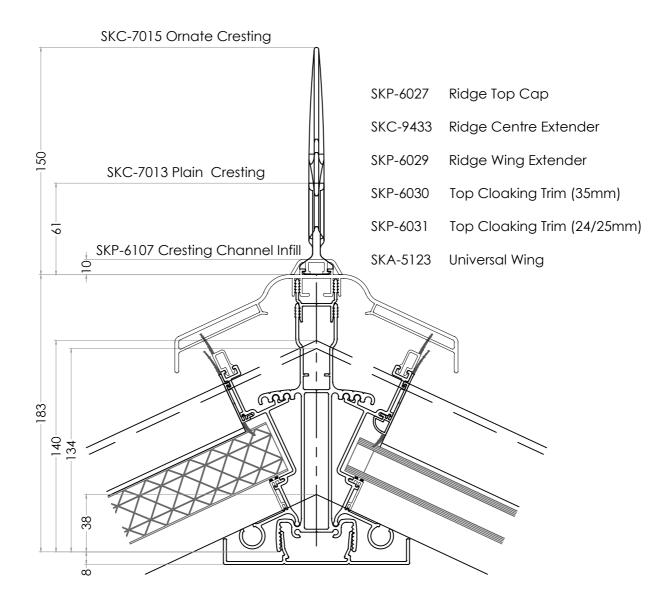


Illustration showing two glazing options:

35mm Polycarbonate 24mm Double Glazed Glass Units (25mm Polycarbonate)





30° VARIABLE PITCH RIDGE (Extended)

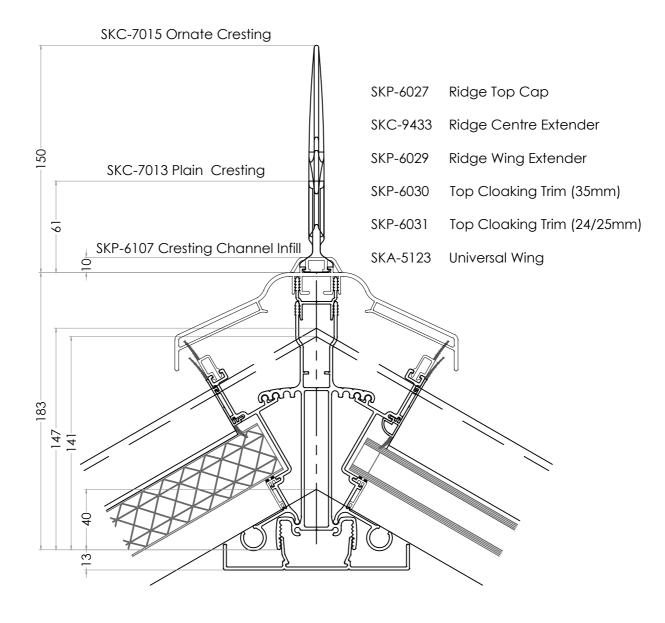


Illustration showing two glazing options:

35mm Polycarbonate 24mm Double Glazed Glass Units (25mm Polycarbonate)





35° VARIABLE PITCH RIDGE (Extended)

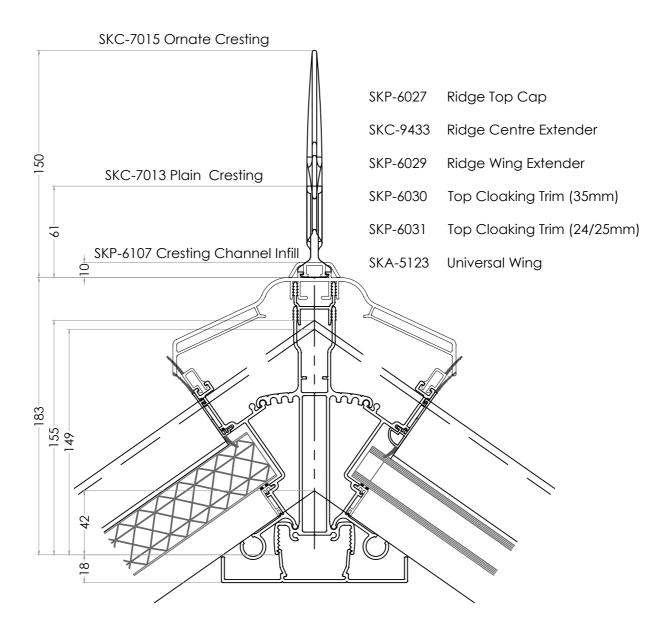


Illustration showing two glazing options:

35mm Polycarbonate 24mm Double Glazed Glass Units (25mm Polycarbonate)





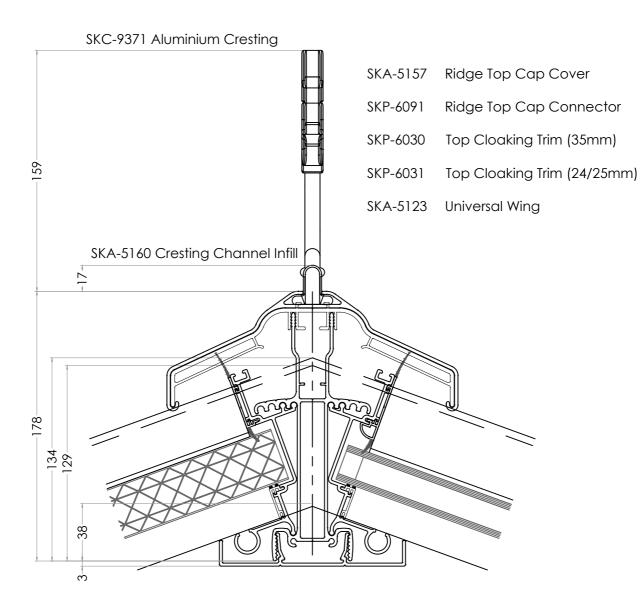


Illustration showing two glazing options:

35mm Polycarbonate 24mm Double Glazed Glass Units (25mm Polycarbonate)





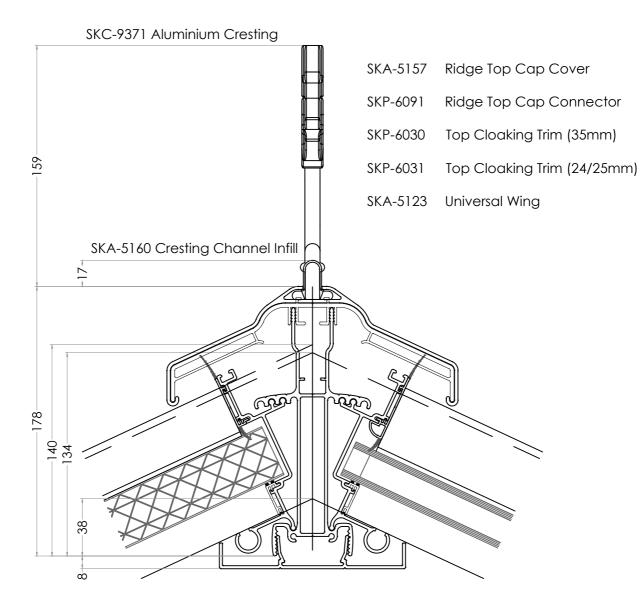


Illustration showing two glazing options:

35mm Polycarbonate 24mm Double Glazed Glass Units (25mm Polycarbonate)





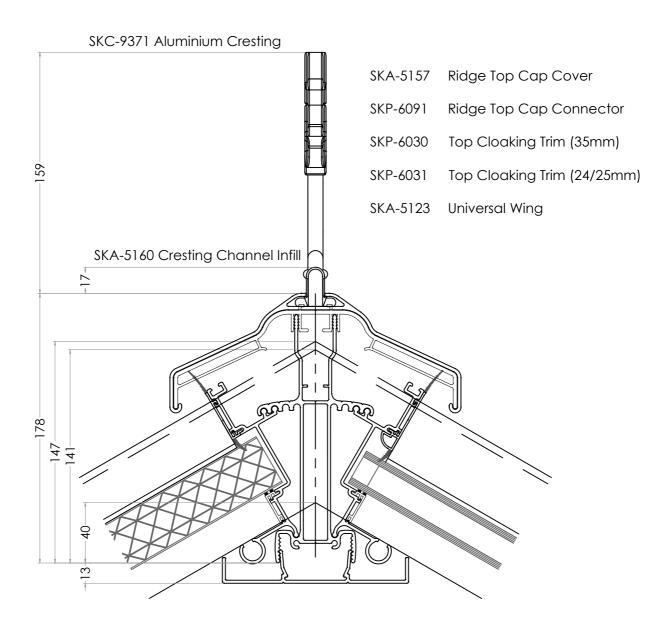


Illustration showing two glazing options:

35mm Polycarbonate 24mm Double Glazed Glass Units (25mm Polycarbonate)





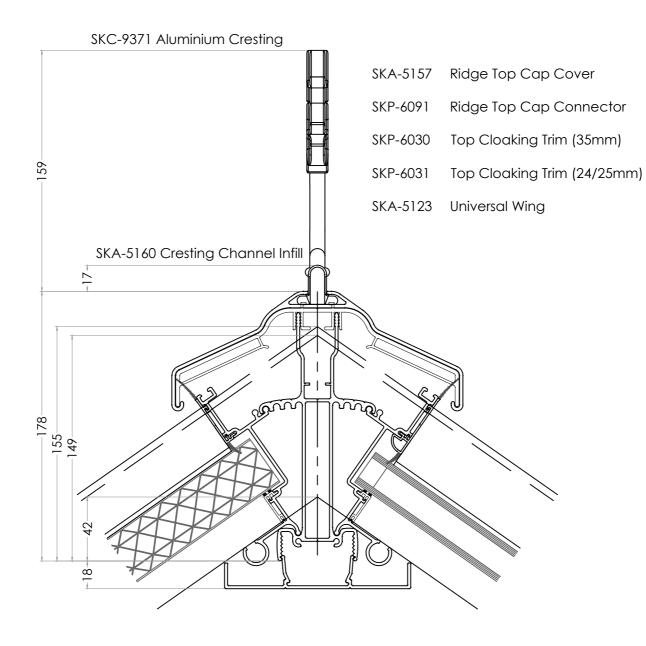


Illustration showing two glazing options:

35mm Polycarbonate 24mm Double Glazed Glass Units (25mm Polycarbonate)





20° VARIABLE PITCH RIDGE (Aluminium & Extended)

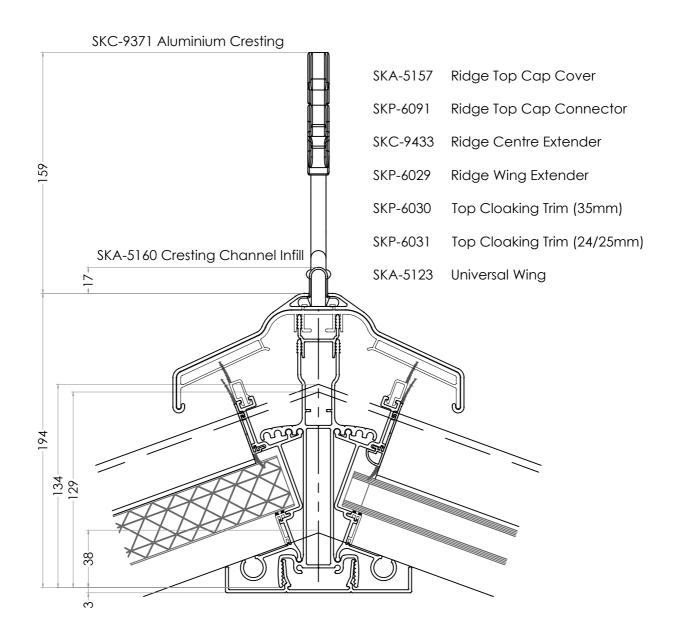


Illustration showing two glazing options:

35mm Polycarbonate 24mm Double Glazed Glass Units (25mm Polycarbonate)





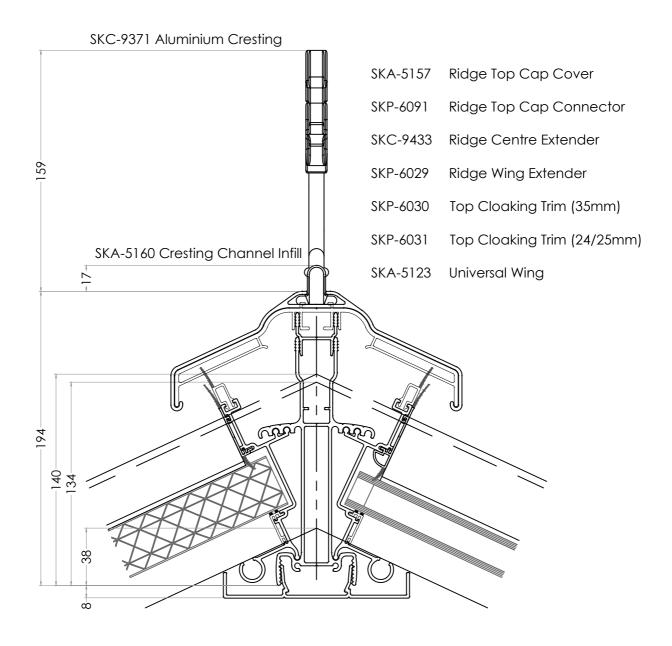


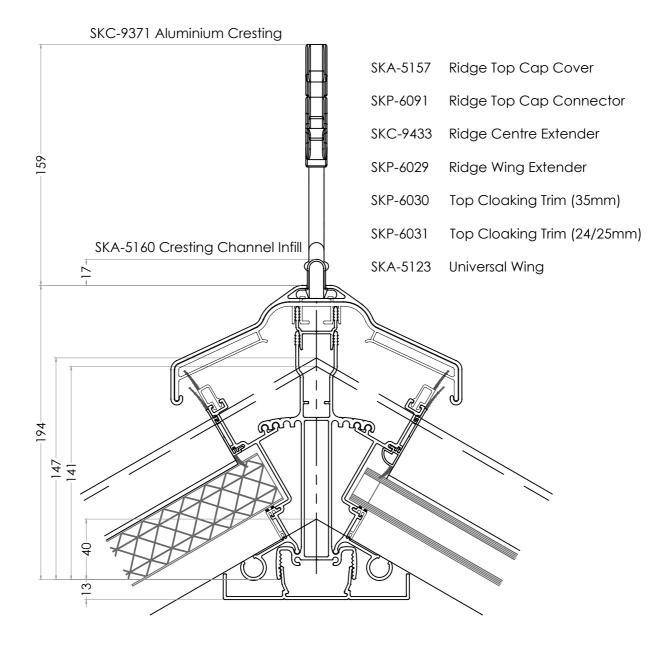
Illustration showing two glazing options:

35mm Polycarbonate 24mm Double Glazed Glass Units (25mm Polycarbonate)





30° VARIABLE PITCH RIDGE (Aluminium & Extended)



Illugstrations trations in two wing it was glazing type ions:
35mm Polycarbon at Famm Polycarbonate
24mm Double Glazed Glass Units (25mm Polycarbonate)





35° VARIABLE PITCH RIDGE (Aluminium & Extended)

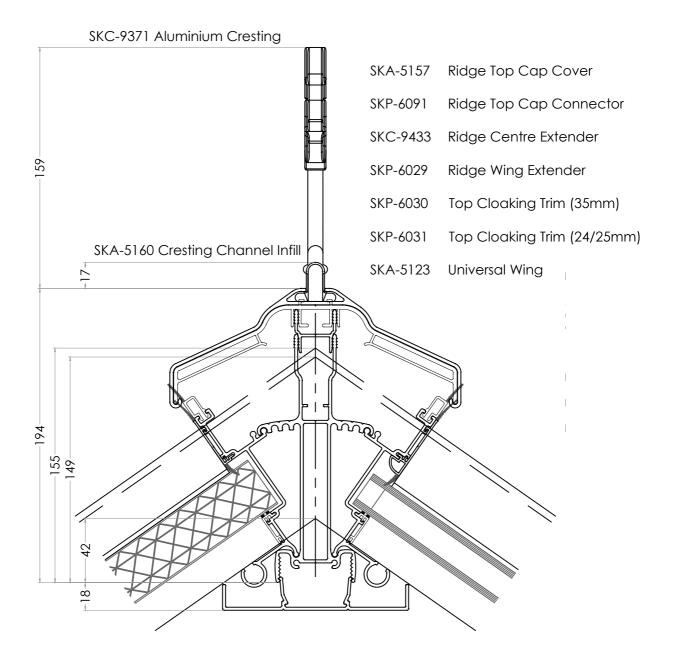


Illustration showing two glazing options:

35mm Polycarbonate 24mm Double Glazed Glass Units (25mm Polycarbonate)



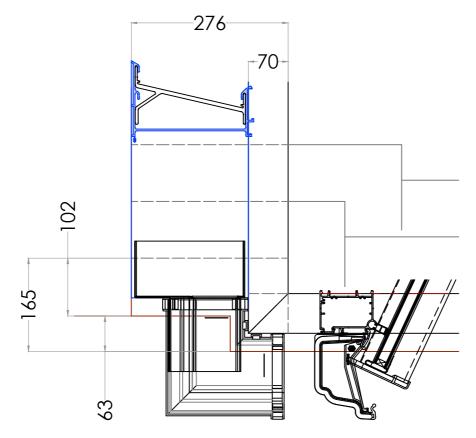




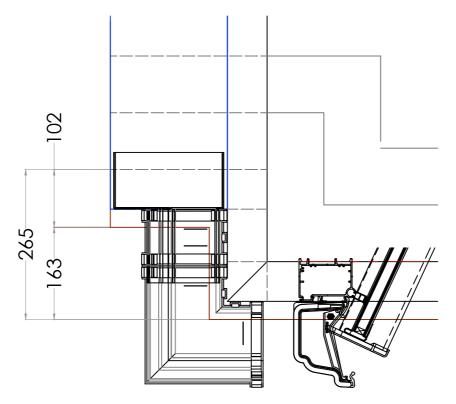




BOX GUTTER & 90° RETURN WALLS



Minimum Brick Return (90° External Gutter Angle)

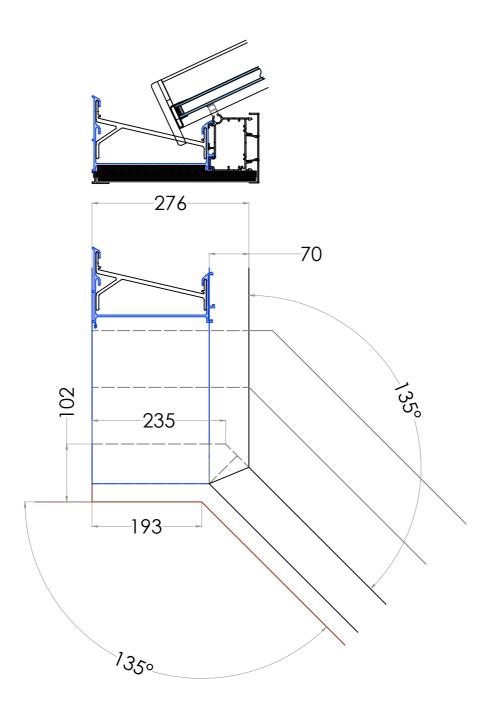


Minimum Brick Return (90° External Gutter Angle & Union)



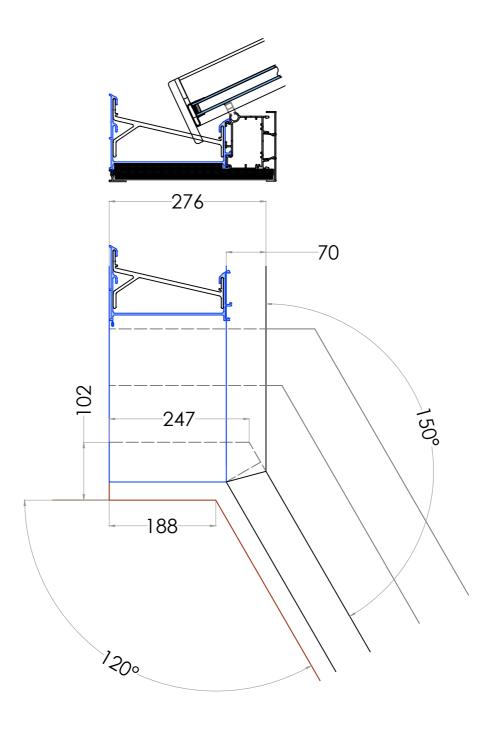


BOX GUTTER & 135° RETURN WALLS



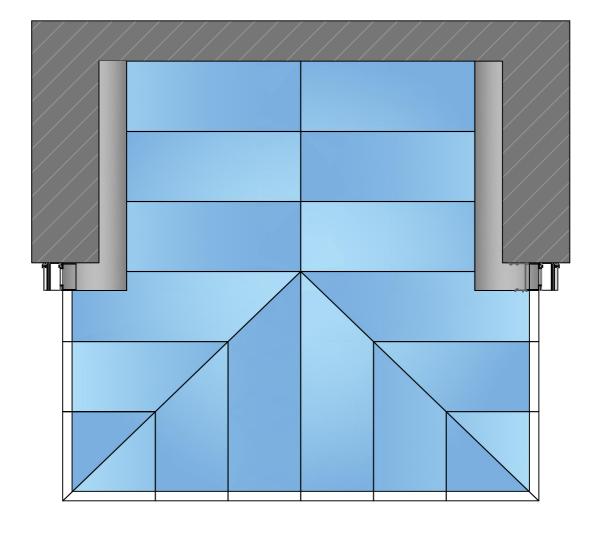










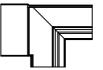




SKC-9441 Universal T Box Gutter Adaptor



SKC-9454 LH Internal 90° to Inline Box Gutter Adaptor



SKC-9455 RH Internal 90° to Inline Box Gutter Adaptor

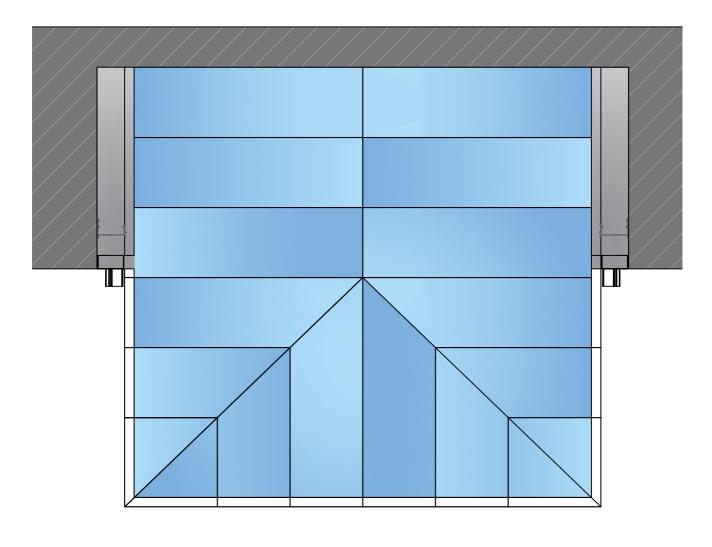


SKC-9441 Universal T Box Gutter Adaptor

All Box Gutter Adaptors require Inline gutter unions (SKC-8035) to connect to roof guttering. SKC-9441 Universal T Box Gutter Adaptors are open ended and require handed gutter stop ends at host wall (SKC-8042).

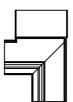








SKC-8044 LH Inline Box Gutter Adaptor



SKC-9455 RH Internal 90° to Inline Box Gutter Adaptor



SKC-9454 LH Internal 90° to Inline Box Gutter Adaptor

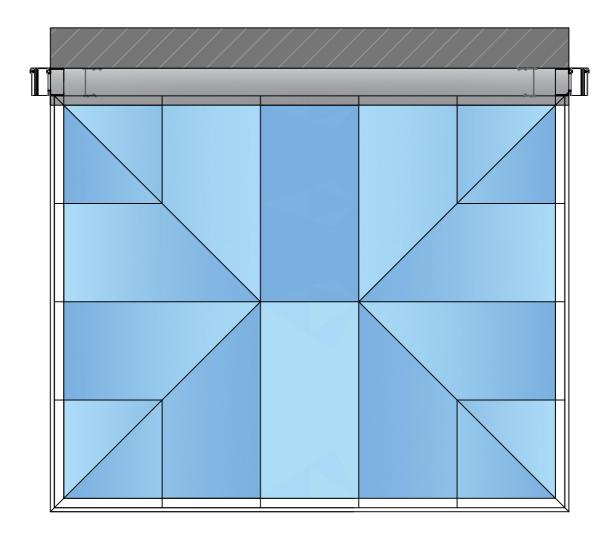


SKC-8045 RH Inline Box Gutter Adaptor

All Box Gutter Adaptors require Inline gutter unions (SKC-8035) to connect to roof guttering.





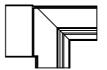




SKC-9441 Universal T Box Gutter Adaptor



SKC-9454 LH Internal 90° to Inline Box Gutter Adaptor



SKC-9455 RH Internal 90° to Inline Box Gutter Adaptor

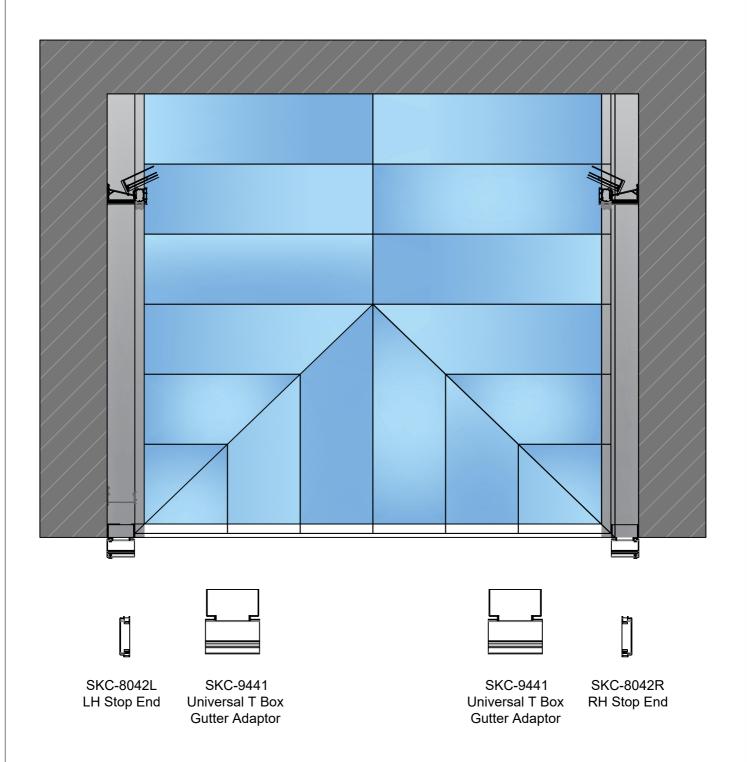


SKC-9441 Universal T Box Gutter Adaptor

All Box Gutter Adaptors require Inline gutter unions (SKC-8035) to connect to roof guttering. SKC-9441 Universal T Box Gutter Adaptors are open ended and require handed gutter stop ends at host wall (SKC-8042).



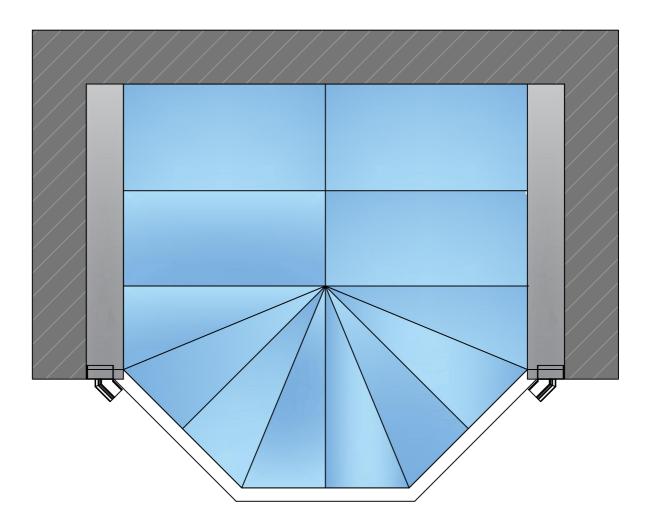




All Box Gutter Adaptors require Inline gutter unions (SKC-8035) to connect to roof guttering. SKC-9441 Universal T Box Gutter Adaptors are open ended and require handed gutter stop ends at host wall (SKC-8042).









SKC-8048 135° Box Gutter Adaptor LH

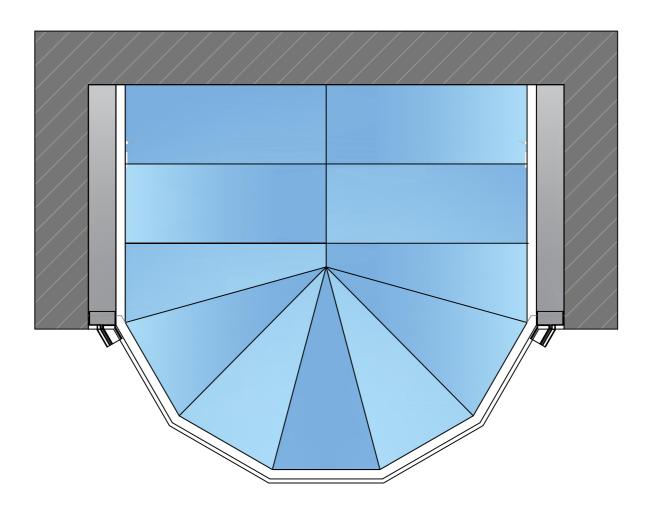


SKC-8049 135° Box Gutter Adaptor LH

All Box Gutter Adaptors require Inline gutter unions (SKC-8035) to connect to roof guttering.









SKC-8050 150° Box Gutter Adaptor LH



SKC-8051 150° Box Gutter Adaptor RH

All Box Gutter Adaptors require Inline gutter unions (SKC-8035) to connect to roof guttering.



