Uniclass	EPIC
L3811+L411+L413:P43	C421+D11+D13:X46
CI/SfB	
(21.4)+(31.4)+(31.5)	Xh4

July 2009

sapa: buildingsystem
ARCHITECTURAL ALUMINIUM SOLUTIONS

Elegance SC Solar Control

Technical Data Sheet

Sapa Building System

Contents

FM01154

sapa:

Elegance SC Solar Control

Helping to make today's buildings perform

Elegance SC Solar Control has been developed to complement the Sapa range of windows and curtain walling and meet the ever increasing energy demands put on the building facade.

Correctly positioned, Elegance SC can provide additional comfort to the building user by reducing solar glare from high solar altitudes during the summer months, and by maximising solar gain in the winter months to increase internal building temperatures from the low solar altitudes. Various configurations of shading are available with unique characteristics for each individual application.

Certain configurations provide partial shading which may lead to temperature differentials on the surface of the glass during peak times of the year. Always check with your glass supplier to ensure the specified glazing is suitable for use with Elegance SC Solar Control.

Total solutions from Sapa

The introduction of Elegance SC Solar Control can significantly reduce the amount of solar radiation on the building facade and therefore reduce the amount of solar gain inside the building. The lower internal temperature reduces the necessity for mechanical cooling, thus cutting energy usage and operational costs. On average, the monetary operational cost of mechanically cooling a building is three times more expensive than mechanically heating.

The essential elements for effective solar shading

The key to designing an effective solar shading solution is understanding four key elements which can affect how well a system performs. The changing seasons, effects of different times of the day and the orientation and location of a building all play their part in a system's specification.

Location Orientation Season Time of day

Our Project Consultants will help you to ensure your building's specification delivers at every level.

■ **Product**

Elegance SC solar control system.

■ **Design Variants**

Can be constructed to form -

- Horizontal Projecting Shading
- Horizontal Parallel Shading
- Vertical Parallel Shading

■ **Compatibility**

Can be fitted directly to Elegance 52 curtain walling or used in conjunction with any other Sapa Building Systems window, ground floor treatment or facade system.

■ **Application**

Suitable for installation in new build or refurbishment projects in residential, commercial or public buildings. Can also be retro-fitted to existing installations.

■ **Finishes**

Shading blades for all three variants of the system can be supplied in either polyester powder coated or anodised finishes. When using the Eco and Aero clip method of assembly, the connection brackets MUST be polyester powder coated to ensure the correct engagement between the shading blade and the clip bracket is constantly achieved.

■ **Software**

Bespoke software is available to assist in evaluating the most appropriate shading solution. The path of the sun, orientation of the building and optimal spacing and alignment of blades can all be determined. Snow loads and wind deflection calculations can also be factored into the model.

For more details, or to talk to a Project Consultant, contact the Marketing Department on 01684 853500.

sapa:

Performance data: Elegance SC

Terminology

Horizontal Projecting Shading

A series of horisontal blades projecting directly out from the façade.

This configuration works best on South, South-East or South-West facing elevations, although there can be some benefit on other orientations, dependant on the projection.

Generally a greater projection blocks more radiation, although for a South facing elevation, there is very little additional benefit by increasing the projection more than 0.8 times the window height.

For windows that are tall and narrow, increasing the width of the shading beyond the jambs of the window is more effective than increasing the projection of the shading.

For other windows width extenstions are required to acheieve full shading.

When connecting the horizontal projecting shading to a curtain wall using the capping brackets (SCP210), additional bracing is required by means of a tie-rod (RC615/R133) to support the loads. Where un-supported (without bracing) horizontal projecting shading is preferred, the heavy duty arm (SC151) can be cantilevered from the curtain wall using mullion brackets (SCP211or SCP212) to a maximum dimension of 1.2m, based upon the maximum blade spans and load conditions.

Un-supported spans that exceed 1.2m will have to be calculated on a project basis, depending on the site load conditions and blade spans. Contact Sapa Building Systems for more information.

Attaching arms to the curtain wall may have an effect on the mullion required and will depend on the position of the arm bracket relative to the mullion tie backs. This will have to be calculated by a structural engineer on a project basis, depending on the site load conditions and blade spans.

Horizontal Parallel Shading

A series of horizontal blades are mounted above one another and connect directly to vertical façade.

This configuration is the most effective at blocking radiation on west and east elevations, although the amount of transmittance will depend on the angle and the set-out of the blades, as well as the amount of reflectance afforded by the colour. It can also reduce the level of natural light within the building.

For South West and South East elevations, a blade angle of 0° will block out most of the incoming solar gain, whilst allowing for some view out. On other elevations the blades will require a greater degree of tilt in order to block out solar gains.

Vertical Parallel Shading

Vertical blades project out either side of a window, or connected directly to the transoms on a vertical façade.

For window applications the blades should extend well beyond the top of the frame for the best results.

This configuration is most effective on the North elevation where the blades can block out most of the sunlight, but it also makes a useful contribution on the North-East and North-West

Various categories of shading are also available depending on budget, aesthetics and design requirements.

Product variants

Eco Clip

Developed to provide maximum shading to a façade, both in terms of area coverage and configuration options, whilst using simple profiles that are lightweight and inherently economic.

Fully integrated with the Elegance 52 curtain wall system, there are two blade types depending on the aesthetic requirements of the project.

The Eco clip system can be horizontally projecting to create a canopy shade, using a universal arm that is supported by means of a stainless steel tie rod with an aluminium cover.

The blades can be fitted beneath the universal arm to create a continuous run of shading, or they can be fitted between the arms to create a framed appearance.

The Eco clip system can also be installed horizontally parallel, either by directly fitting to the mullion feature cap to create a continuous run of shading, or by fitting between the mullion feature caps.

Aero Clip

Developed to provide suited solutions for all applications, with an emphasis on eye catching design and large spans.

Three depths of blade, together with a complimentary bull nose profile, have been engineered to span greater distances between fixing points, which reflects the increased module widths demanded of today's curtain wall.

The Aero clip system can be horizontally projecting to create a canopy shade, using a universal arm that can be self supporting using a heavy duty mullion bracket, or is cantilevered or supported using a stainless steel tie rod with an aluminium cover depending on the amount of projection required.

The blades can be fitted beneath the universal arm to create a continuous run of shading, or between for a framed look.

In addition Aero clip system can be horizontally parallel, either by directly fitting to the mullion feature cap to create a continuous run of shading, or by fitting between the mullion feature caps.

Aero clip can also be vertically parallel, either by directly fitting to the transom feature cap to create a continuous run of shading, or by fitting between individual transom feature caps.

Preparation of both 'Clip' systems has been kept simple with square cut joints and universal fixings, whilst the clip method of assembly itself (Patent applied for), means that installation is quick, easy and safe thanks to a security locking pin.

Side Arm

A range of blade profiles that can be used to create any shading configuration to meet the design requirements.

Blades range from 100 to 750mm and can be fabricated into frames or cassettes using bespoke laser cut side arm plates to capture the required arrangement.

These can be connected to Elegance 52 curtain wall using an extruded bespoke engineered bracket. Alternatively connections can be made to a window system or the building structure via a steel stub, in accordance with calculations carried out by a structural engineer.

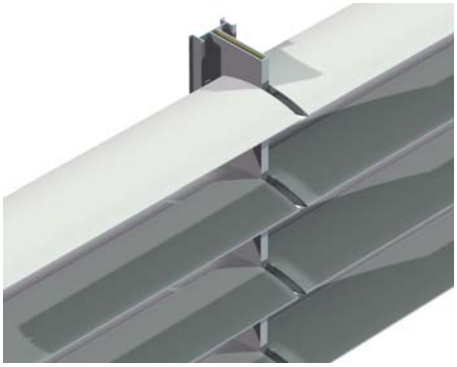
Site Work

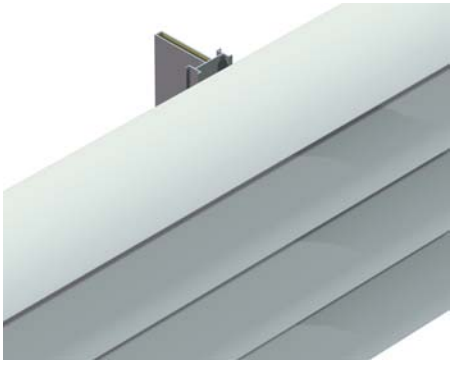
Fabrication, installation and glazing service is available through a nationwide network of specialist curtain walling fabricators & installers. For details of suitable fabricators & installers, please contact our Marketing Department on 01684 853500.

Application Chart

The chart below will help you to identify which variant of Elegance SC is most suited to your application.

		Horizontal Projecting		Horizontal Parallel					
Part No	Description	Continuous	Intermittent	90° Continuous	90° Intermittent	45° Continuous	45° Intermittent	Vertical Parallel	
SC121	'Z' Blade	●	●			●	●		Eco
SC120	'C' Blade	●	●			●	●		
SC100	'100mm' Blade	●	●	●	●	●	●	●	Aero
SC101	'150mm' Blade	●	●	●	●	●	●	●	
SC102	'200mm' Blade	●	●	●	●	●	●	●	
SC102	'200mm' Blade		●		●		●	●	Side Arm
	'340mm' Blade		●		●		●	●	
SC104	'400mm' Blade		●		●		●	●	
	'420mm' Blade		●		●		●	●	
SC105	'500mm' Blade		●		●		●	●	
-	'600mm' Blade		●		●		●	●	





Support services

- Our field based Project Consultants, working with our in-house team, provide UK specifiers with specialist advice concerning the correct application of products, giving guidance on Building Regulations, British Standards and other issues such as product specifications, usage, maintenance and safety. Complementary to this, our Product Support Department has an invaluable reservoir of experience on every aspect of our product range.

- We also appreciate that the specification process is influenced by client demands to obtain best value and, to that end, we can participate in site visits, design meetings and budgetary planning. We can assist with written specification documents (which can be supplied in either an NBS format, or your own specification layout) and supported by samples, literature and drawings for consultation or planning issues.

- Taking this partnership approach through the whole project allows on-site monitoring of manufacturing and installation ensuring the specifier always has professional support from a worldwide group. Drawing on one of the largest fabricator and installer networks in the UK, we can provide details of specialist contractors who will quote or tender competitively for any type of contract.

- For specification assistance or details of fabricators and installers, please call our Marketing Department on 01684 853500.

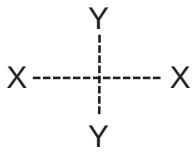
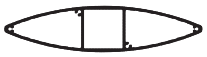
- Sapa Group

  Sapa Building Systems Limited is a member of the worldwide Sapa Group. We develop and market high value-added profiles in aluminium and are the leading independent producer of aluminium profiles in the world, with customers in Europe, North America and Asia. In the UK, the Sapa Group has extensive multi-site extruding, re-melt, anodising and polyester powder coating facilities, offering total control and a fast and co-operative response.

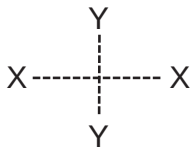
  Backed by the resources of the Group, Sapa Building Systems Limited offers architects and specifiers a wide range of innovative aluminium systems for curtain walling, doors, windows and specialist applications. With a wealth of European knowledge and experience our company incorporates the highly respected Glostal, Monarch and RC System brands that have satisfied the demands of specifiers for over four decades. Our company systems have been approved under BS EN ISO 9001:2000 and we have been recognised as an Investor in People for over ten years.

PROFILE INERTIA VALUES

The following pages give information on the inertia values of the Elegance SC Solar Control system profiles.

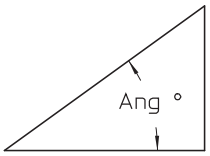
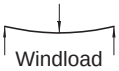
	**Profile**	**Ixx cm4** **Wxx cm3**	**Iyy cm4** **Wyy cm3**	**Profile length**	**Description**
	SC100	1,65 1,63	38,08 7,55	6100mm	100mm Blade (Clip)
	SC101	6,58 4,34	124,61 16,43	6100mm	150mm Blade (Clip)
	SC102	17,51 8,65	313,20 30,80	6100mm	200mm Blade (Clip)
	SC103	30,23 10,58	222,40 23,58	6100mm	340mm Multi Piece Blad End (Side Arm)
	SC104	326,01 71,34	3742,01 187,10	6100mm	400mm Blade (Side Arm)
	SC105	162,01 54,00	7604,75 304,19	6100mm	500mm Blade (Side Arm)
	SC107	110,82 31,63	418,13 43,40	6100mm	600mm Multi Piece Blade Centre (Side Arm)
	SC108	50,72 15,58	494,61 42,37	6100mm	420mm & 600mm Multi Piece Blade End (Side Arm)

PROFILE INERTIA VALUES

	**Profile**	**Ixx cm4** **Wxx cm3**	**Iyy cm4** **Wyy cm3**	**Profile length**	**Description**
	SC120	61,78 8,18	29,44 4,21	6100mm	Bull Nose
	SC121	7,96 3,01	23,15 36,6	6100mm	‘Z’ Blade
	SC122	13,60 2,39	21,17 3,25	6100mm	‘C’ Blade
	SC150	112,34 16,12	15,11 4,58	6100mm	Support Arm
	SC151	206,55 23,96	15,66 4,74	6100mm	Heavy Duty Support Arm
	SC800	16,14 -	11,60 -	6100mm	45° Blade Clip
	SC801	59,37 -	21,61 -	6100mm	90° Blade Clip

PROFILE INERTIA VALUES

Y X ---------- X Y	Profile	Ixx cm4 Wxx cm3	Iyy cm4 Wyy cm3	Profile length	Description
	SC802	137,08 -	5,41 -	6100mm	Capping Bracket
	SC803	10,07 -	5,856,52 -	3000mm	Curtain Wall Bracket
	R133	0,14 -	0,14 -	5000mm	Tie Bar Aluminium Cover
	52P05	2,24 -	11,66 -	7000mm	Pressure Plate
	52P57	1,20 -	9,93 -	7000mm	Pressure Plate

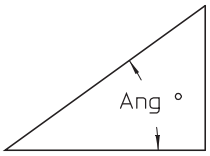
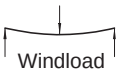
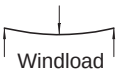
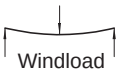
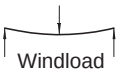
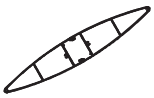
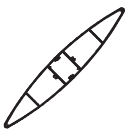
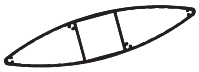
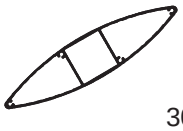
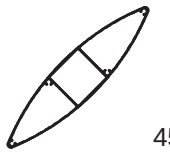
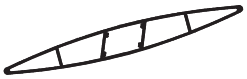
	**Profile**	Load 'A'  Windload 0.8 kN/m2	Load 'B'  Windload 1.2 kN/m2	Load 'C'  Windload 1.6 kN/m2	Load 'D'  Windload 2.0 kN/m2	Load 'E'  Windload 2.4 kN/m2	**Description**
0°	SC100	1.80m *Max Horizontal Span*	1.67m *Max Horizontal Span*	1.57m *Max Horizontal Span*	1.49m *Max Horizontal Span*	1.42m *Max Horizontal Span*	100mm Blade (Clip)
 45°	SC100	2.03m *Max Horizontal Span*	1.83m *Max Horizontal Span*	1.68m *Max Horizontal Span*	1.58m *Max Horizontal Span*	1.49m *Max Horizontal Span*	100mm Blade (Clip)
 0°	SC101	2.50m *Max Horizontal Span*	2.31m *Max Horizontal Span*	2.17m *Max Horizontal Span*	2.06m *Max Horizontal Span*	1.96m *Max Horizontal Span*	150mm Blade (Clip)
 45°	SC101	2.89m *Max Horizontal Span*	2.58m *Max Horizontal Span*	2.37m *Max Horizontal Span*	2.21m *Max Horizontal Span*	2.09m *Max Horizontal Span*	150mm Blade (Clip)
 0°	SC102	3.14m *Max Horizontal Span*	2.91m *Max Horizontal Span*	2.73m *Max Horizontal Span*	2.59m *Max Horizontal Span*	2.47m *Max Horizontal Span*	200mm Blade (Clip)
 45°	SC102	3.58m *Max Horizontal Span*	3.21m *Max Horizontal Span*	2.96m *Max Horizontal Span*	2.77m *Max Horizontal Span*	2.62m *Max Horizontal Span*	200mm Blade (Clip)
 0°	SC103 (x2)	4.08m *Max Horizontal Span*	3.75m *Max Horizontal Span*	3.51m *Max Horizontal Span*	3.32m *Max Horizontal Span*	3.17m *Max Horizontal Span*	340mm Multi Piece Blade (Side Arm)
 15°	SC103 (x2)	4.10m *Max Horizontal Span*	3.77m *Max Horizontal Span*	3.52m *Max Horizontal Span*	3.33m *Max Horizontal Span*	3.17m *Max Horizontal Span*	340mm Multi Piece Blade (Side Arm)

Load Condition = (Windload) + 0.89 kN/m2 (Characteristic Snow Load S_k see page A-11) + Profile Weight (Deadload)

Maximum Deflection = Span / 100

*When using a horizontal clip blade intermittently, the blade span must **NOT** exceed 1.5 m*

WINDLOADING

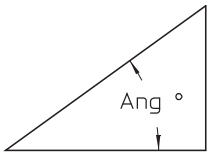
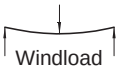
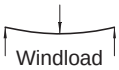
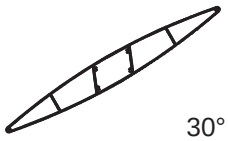
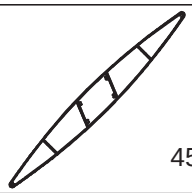
	Profile	Load 'A'  Windload 0.8 kN/m2	Load 'B'  Windload 1.2 kN/m2	Load 'C'  Windload 1.6 kN/m2	Load 'D'  Windload 2.0 kN/m2	Load 'E'  Windload 2.4 kN/m2	*Description*
 30°	SC103 (x2)	4.16m *Max Horizontal Span*	3.81m *Max Horizontal Span*	3.56m *Max Horizontal Span*	3.36m *Max Horizontal Span*	3.20m *Max Horizontal Span*	340mm Multi Piece Blade (Side Arm)
 45°	SC103 (x2)	4.42m *Max Horizontal Span*	3.99m *Max Horizontal Span*	3.69m *Max Horizontal Span*	3.46m *Max Horizontal Span*	3.28m *Max Horizontal Span*	340mm Multi Piece Blade (Side Arm)
 0°	SC104	6.77m *Max Horizontal Span*	6.23m *Max Horizontal Span*	5.83m *Max Horizontal Span*	5.52m *Max Horizontal Span*	5.26m *Max Horizontal Span*	400mm Blade (Side Arm)
 15°	SC104	6.81m *Max Horizontal Span*	6.26m *Max Horizontal Span*	5.85m *Max Horizontal Span*	5.53m *Max Horizontal Span*	5.27m *Max Horizontal Span*	400mm Blade (Side Arm)
 30°	SC104	6.91m *Max Horizontal Span*	6.33m *Max Horizontal Span*	5.90m *Max Horizontal Span*	5.57m *Max Horizontal Span*	5.31m *Max Horizontal Span*	400mm Blade (Side Arm)
 45°	SC104	7.35m *Max Horizontal Span*	6.63m *Max Horizontal Span*	6.13m *Max Horizontal Span*	5.75m *Max Horizontal Span*	5.45m *Max Horizontal Span*	400mm Blade (Side Arm)
 0°	SC105	4.98m *Max Horizontal Span*	4.58m *Max Horizontal Span*	4.29m *Max Horizontal Span*	4.06m *Max Horizontal Span*	3.87m *Max Horizontal Span*	500mm Blade (Side Arm)
 15°	SC105	5.01m *Max Horizontal Span*	4.60m *Max Horizontal Span*	4.30m *Max Horizontal Span*	4.07m *Max Horizontal Span*	3.88m *Max Horizontal Span*	500mm Blade (Side Arm)

Load Condition = (Windload) + 0.89 kN/m2 (Characteristic Snow Load S_k see page A-11) + Profile Weight (Deadload)

Maximum Deflection = Span / 100

*When using a horizontal clip blade intermittently, the blade span must **NOT** exceed 1.5 m*

WINDLOADING

	**Profile**	Load 'A'  Windload 0.8 kN/m2	Load 'B'  Windload 1.2 kN/m2	Load 'C'  Windload 1.6 kN/m2	Load 'D'  Windload 2.0 kN/m2	Load 'E'  Windload 2.4 kN/m2	**Description**
 30°	SC105	5.08m *Max Horizontal Span*	4.65m *Max Horizontal Span*	4.34m *Max Horizontal Span*	4.10m *Max Horizontal Span*	3.90m *Max Horizontal Span*	500mm Blade (Side Arm)
 45°	SC105	5.40m *Max Horizontal Span*	4.87m *Max Horizontal Span*	4.50m *Max Horizontal Span*	4.23m *Max Horizontal Span*	4.01m *Max Horizontal Span*	500mm Blade (Side Arm)
 0°	SC120	3.66m *Max Horizontal Span*	3.33m *Max Horizontal Span*	3.10m *Max Horizontal Span*	2.92m *Max Horizontal Span*	2.78m *Max Horizontal Span*	Bull Nose
 0°	SC121	1.05m *Max Horizontal Span*	0.96m *Max Horizontal Span*	0.90m *Max Horizontal Span*	0.85m *Max Horizontal Span*	0.81m *Max Horizontal Span*	'Z' Blade
 0°	SC122	1.75m *Max Horizontal Span*	1.58m *Max Horizontal Span*	1.46m *Max Horizontal Span*	1.37m *Max Horizontal Span*	1.30m *Max Horizontal Span*	'C' Blade

Load Condition = (Windload) + 0.89 kN/m2 (Characteristic Snow Load S_k see page A-11) + Profile Weight (Deadload)

Maximum Deflection = Span / 100

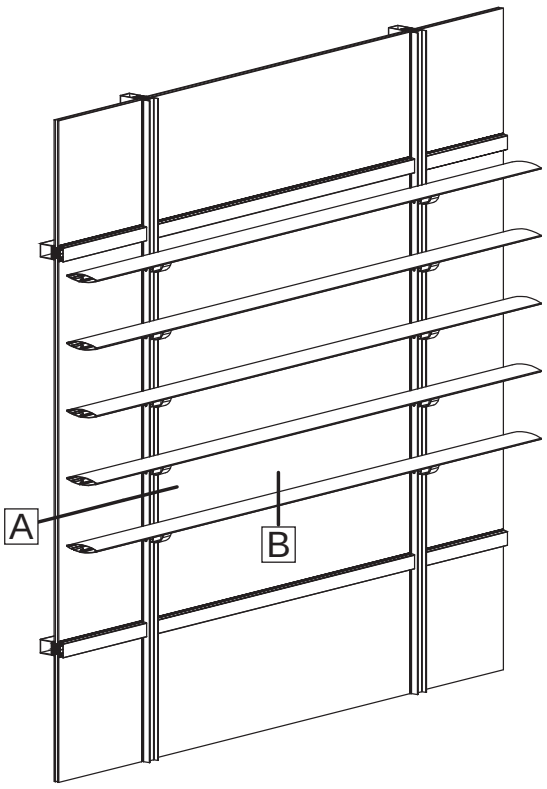
*When using a horizontal clip blade intermittently, the blade span must **NOT** exceed 1.5m*

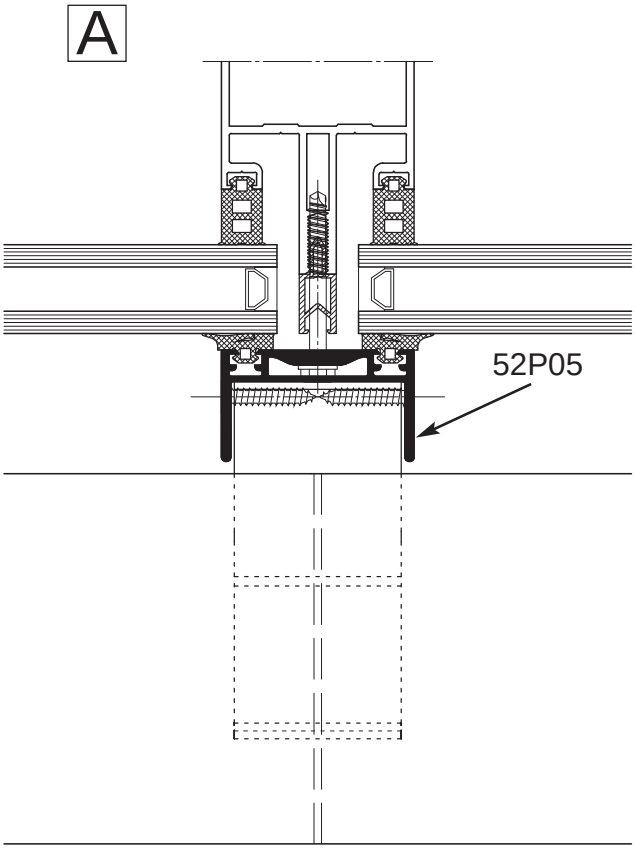
THIS PAGE IS LEFT INTENTIONALLY BLANK

GENERAL ARRANGEMENTS

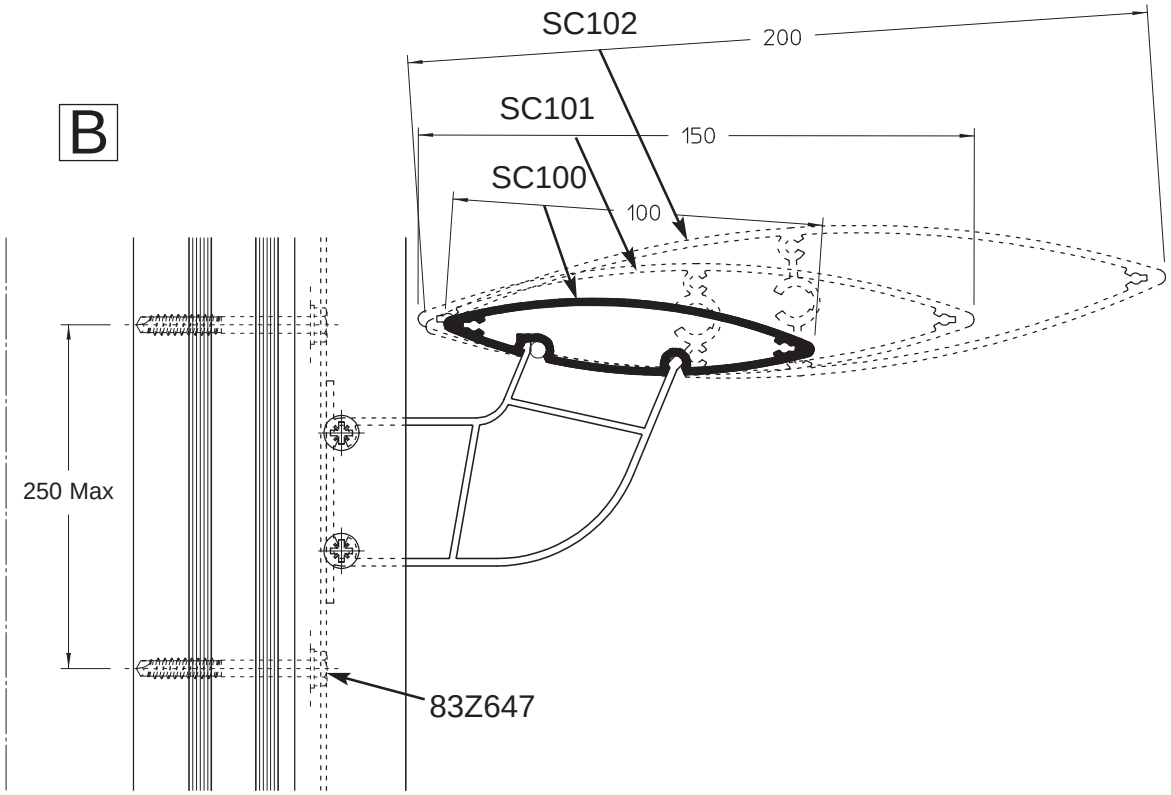
GENERAL ARRANGEMENTS

Horizontal Parallel Shading
Continuous 90° Blade



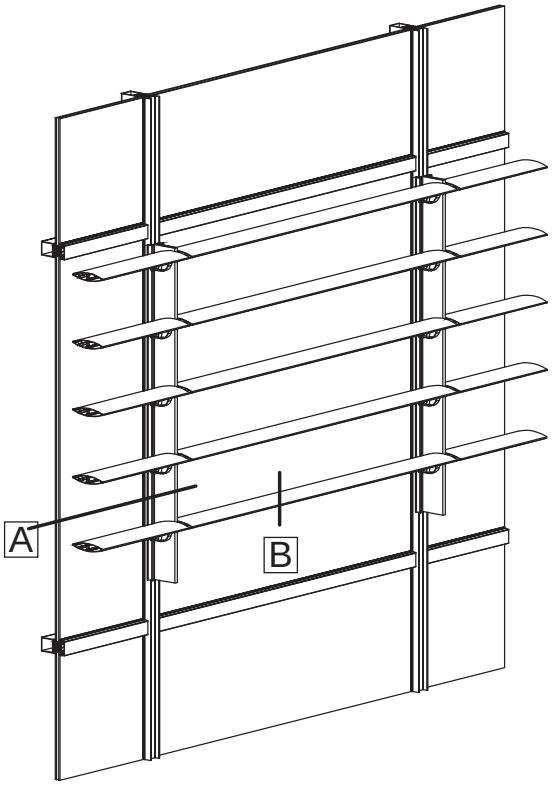


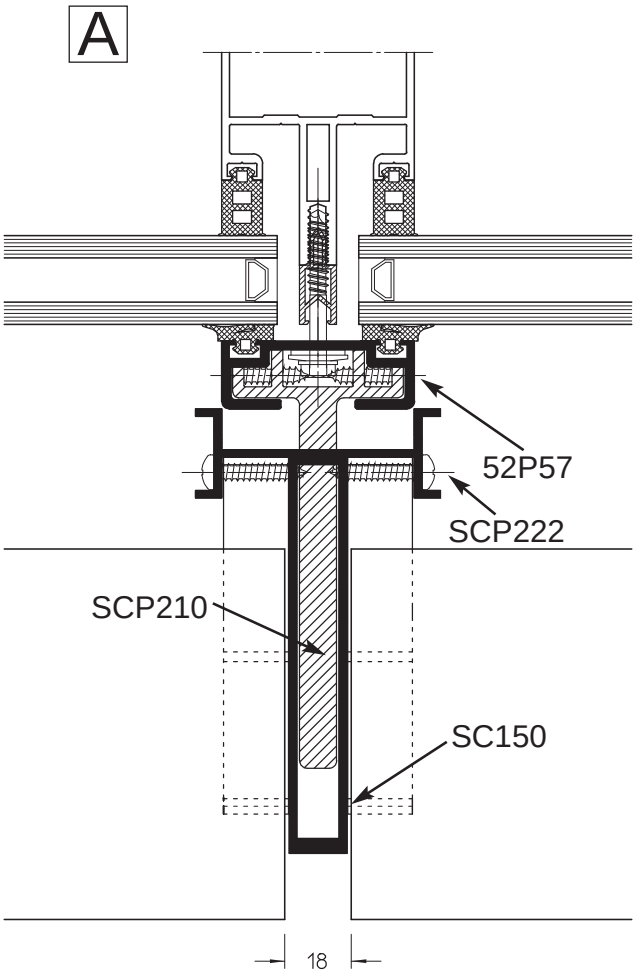
Allow 1mm expansion joint for every 1m length of blade. All expansion joints to be centrally located about a mullion.

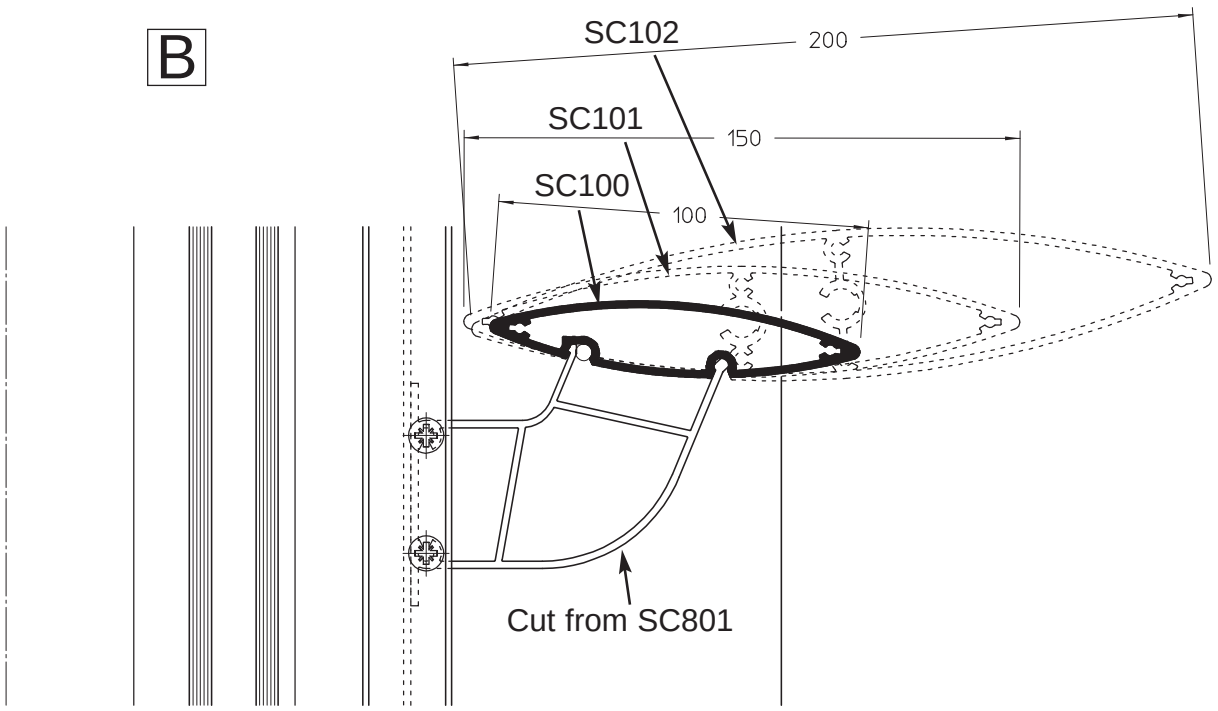


GENERAL ARRANGEMENTS

Horizontal Parallel Shading
Intermittent 90° Blade

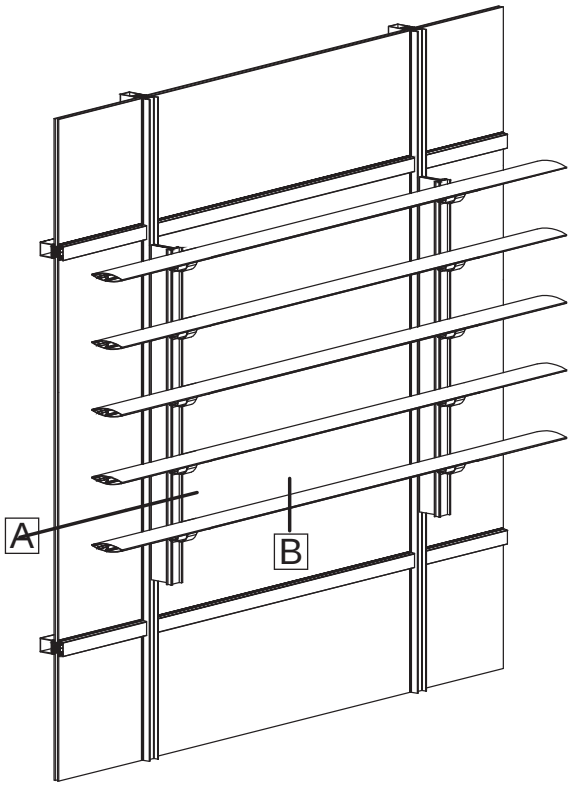






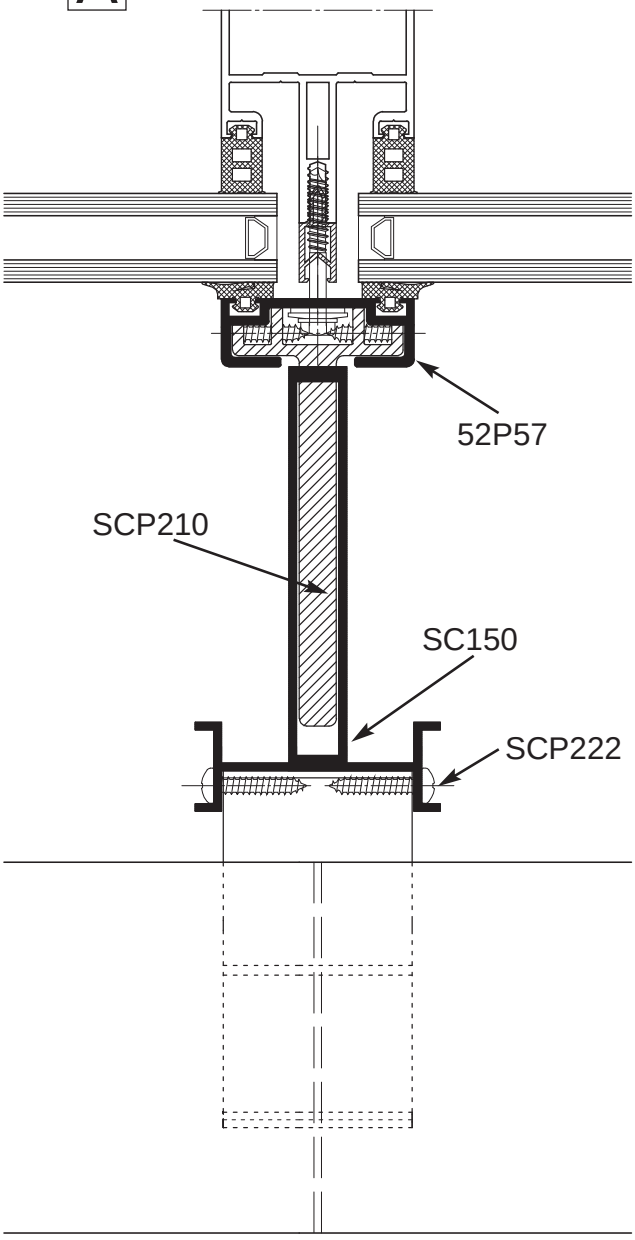
GENERAL ARRANGEMENTS

Horizontal Parallel Shading
Extended - Continuous 90° Blade

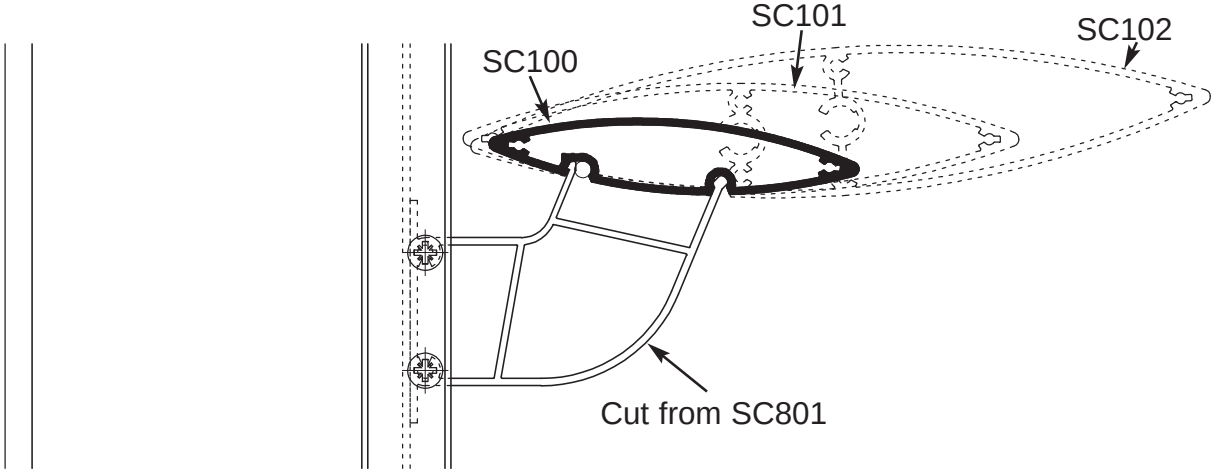


Allow 1mm expansion joint for every 1m length of blade. All expansion joints to be centrally located about a mullion.

A

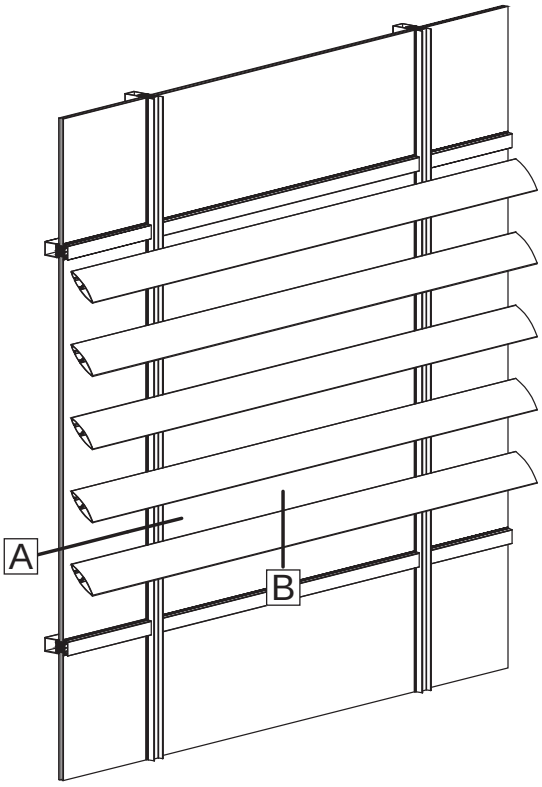


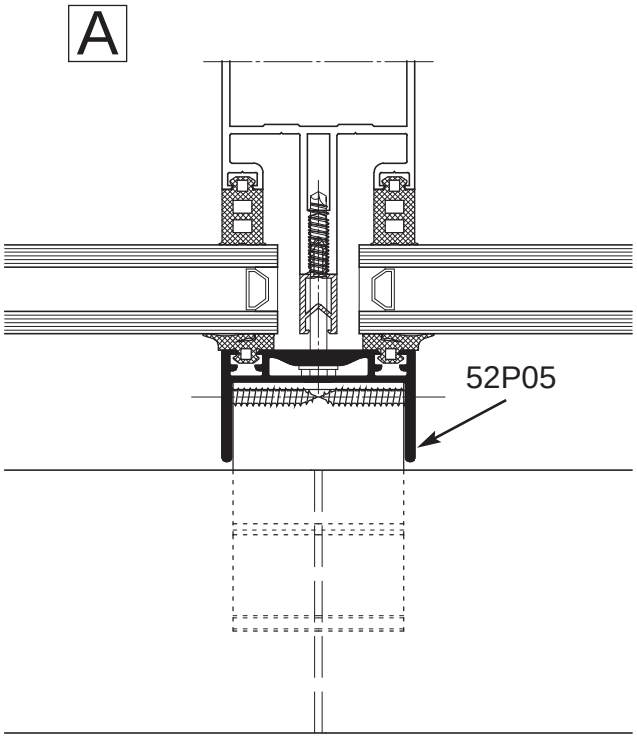
B



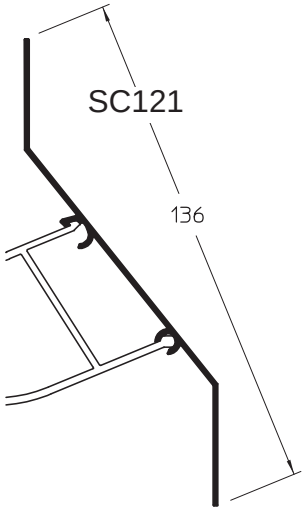
GENERAL ARRANGEMENTS

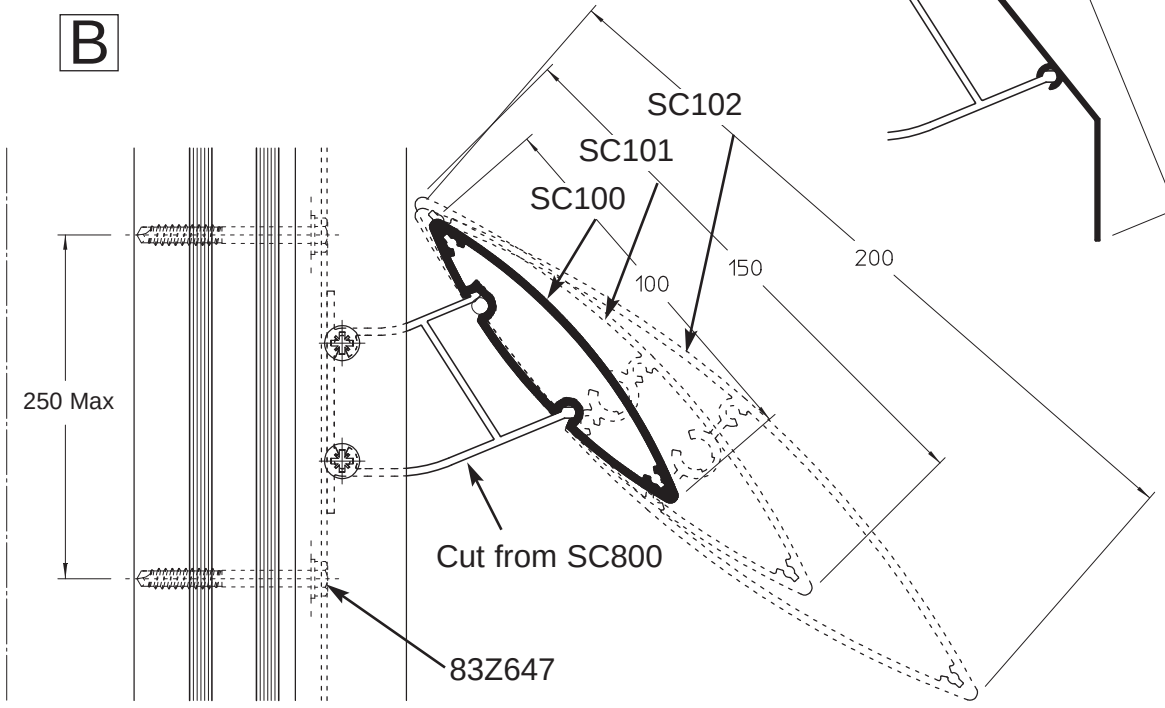
Horizontal Parallel Shading
Continuous 45° Blade





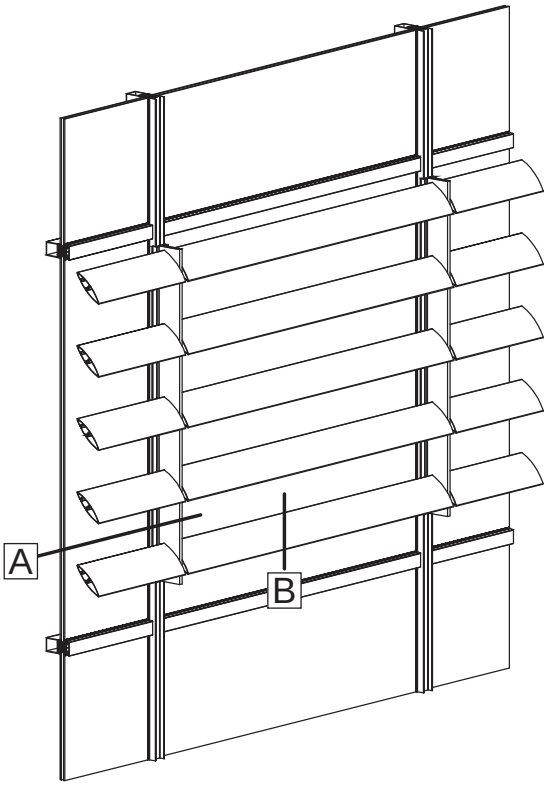
Allow 1mm expansion joint for every 1m length of blade. All expansion joints to be centrally located about a mullion.



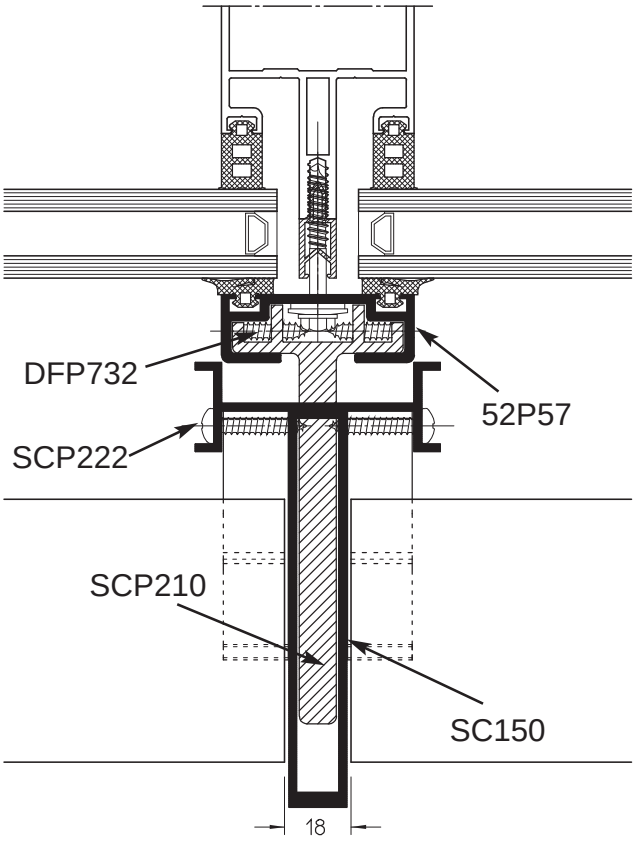


GENERAL ARRANGEMENTS

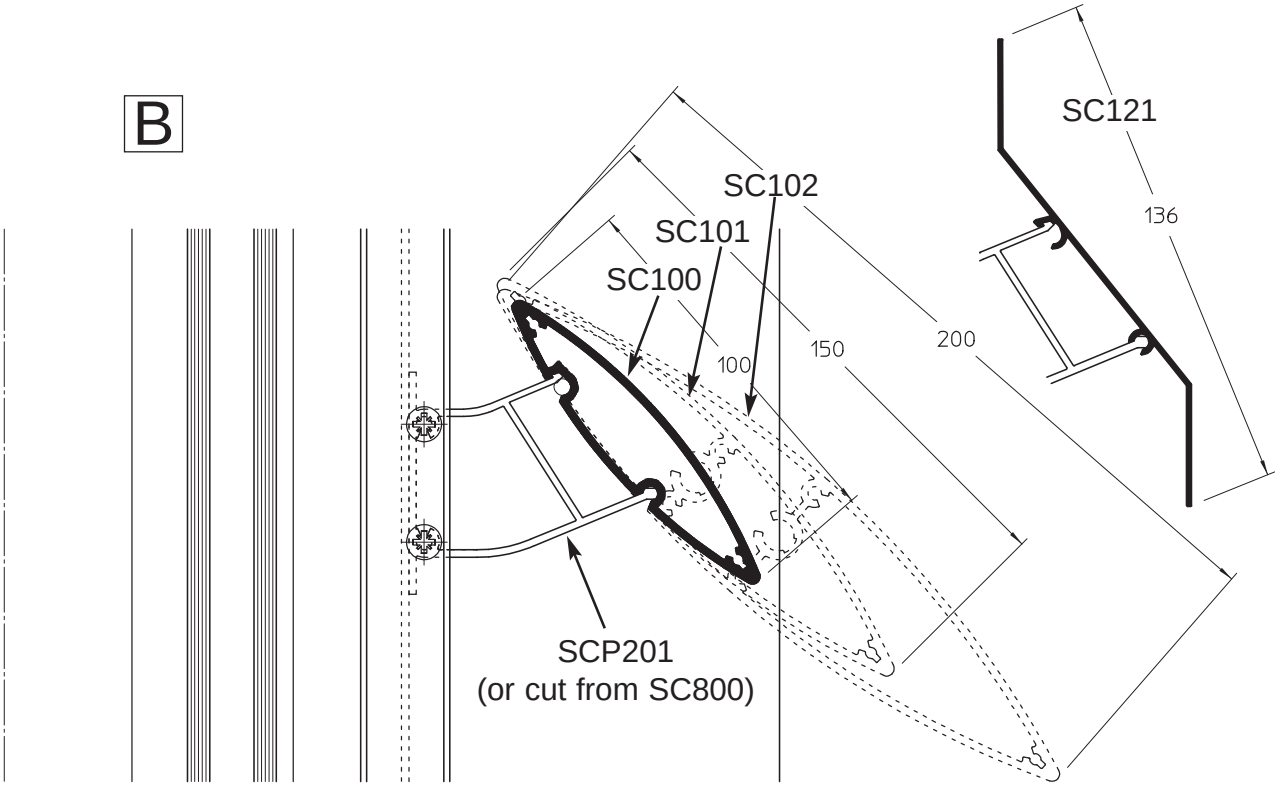
Horizontal Parallel Shading
Intermittent 45° Blade
Maximum Blade Span = 1.5m



A

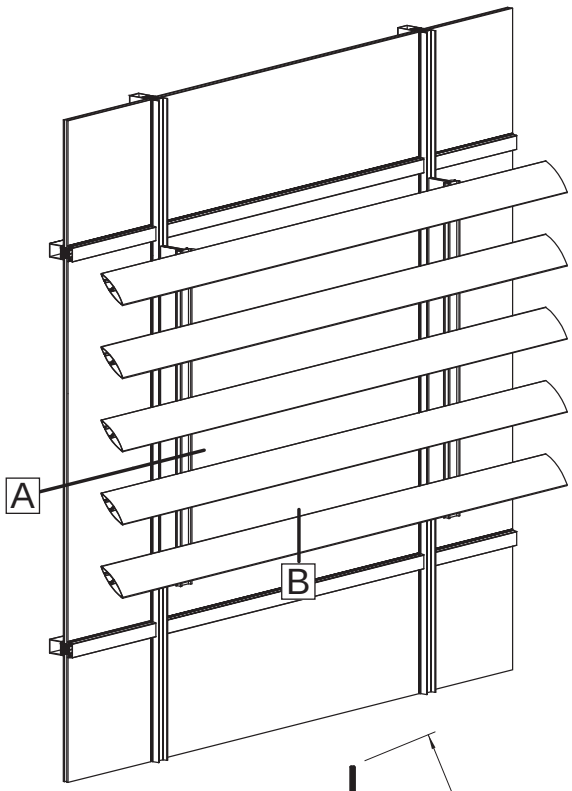


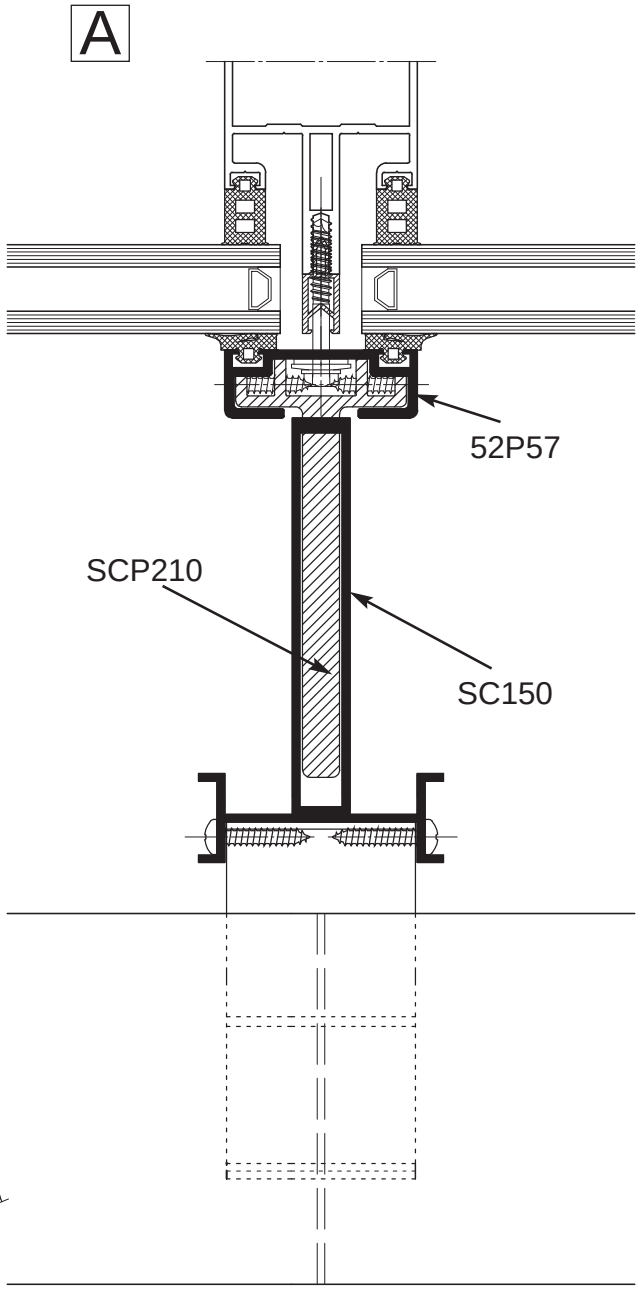
B

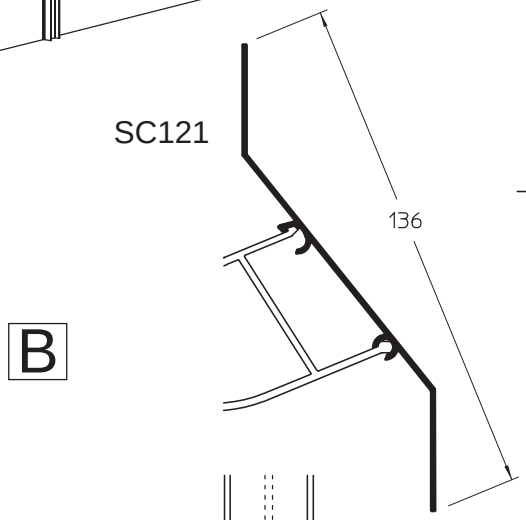


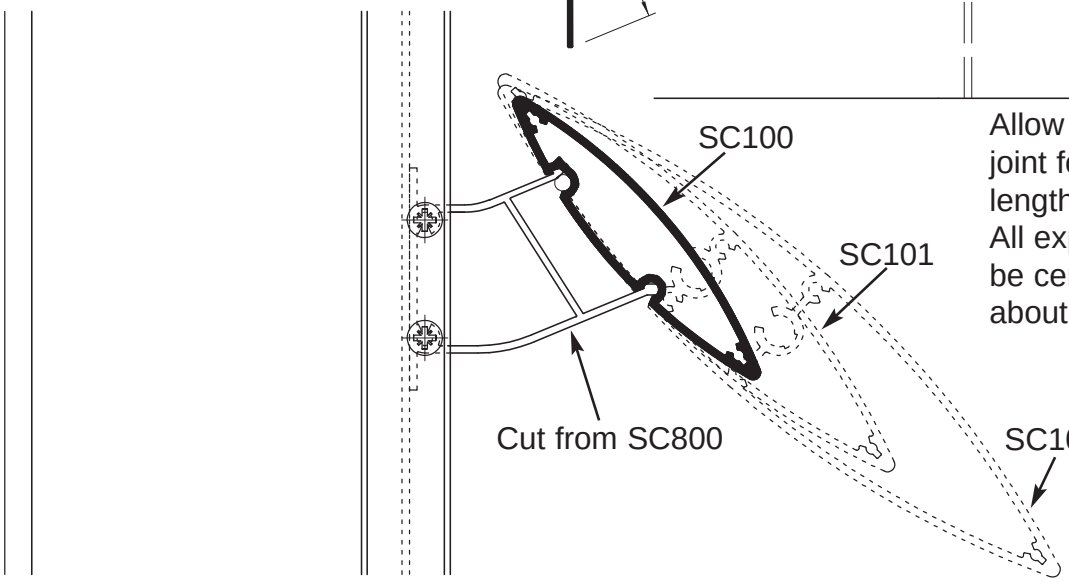
GENERAL ARRANGEMENTS

Horizontal Parallel Shading
Projected - Continuous 45° Blade





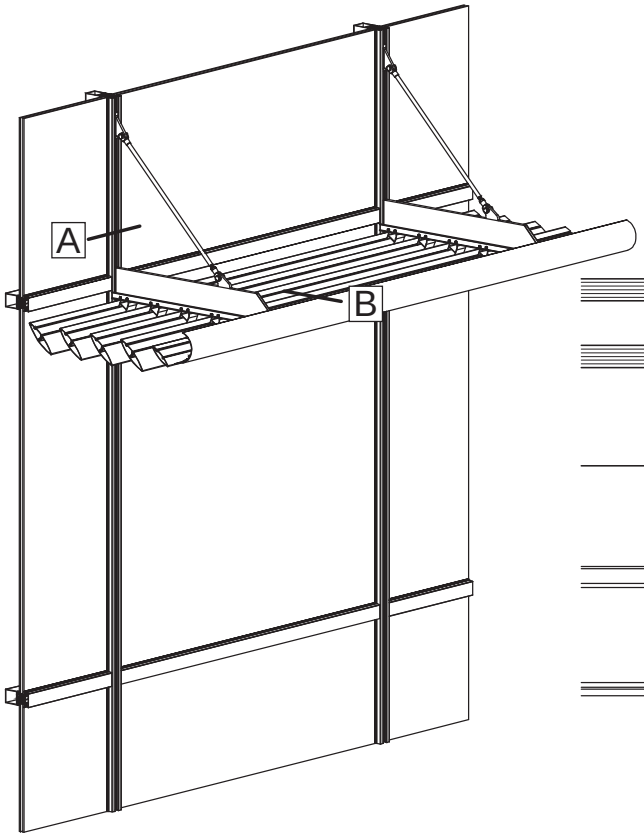




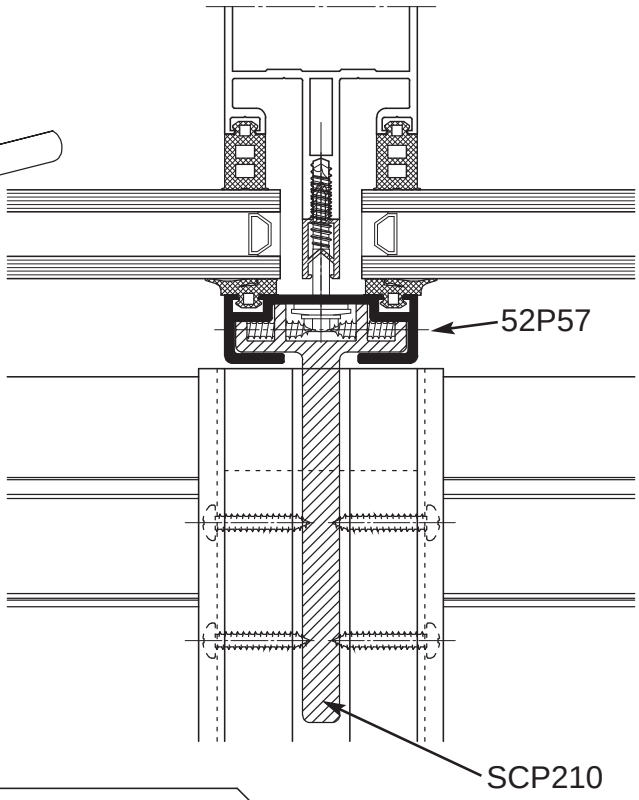
Allow 1mm expansion joint for every 1m length of blade.
All expansion joints to be centrally located about a mullion.

GENERAL ARRANGEMENTS

Horizontal Projecting Shading
Braced - Continuous 45° Blade

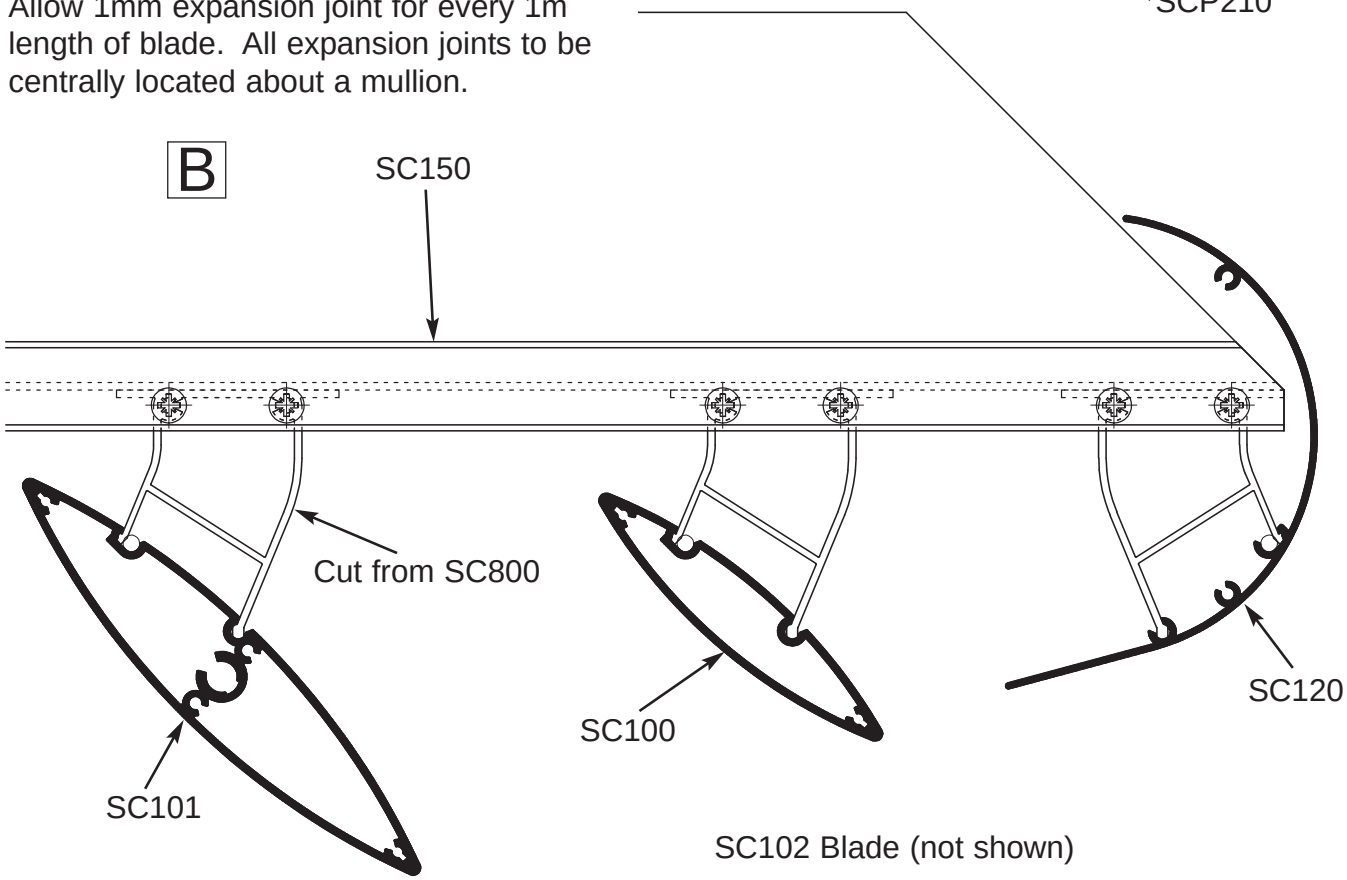


A



Allow 1mm expansion joint for every 1m length of blade. All expansion joints to be centrally located about a mullion.

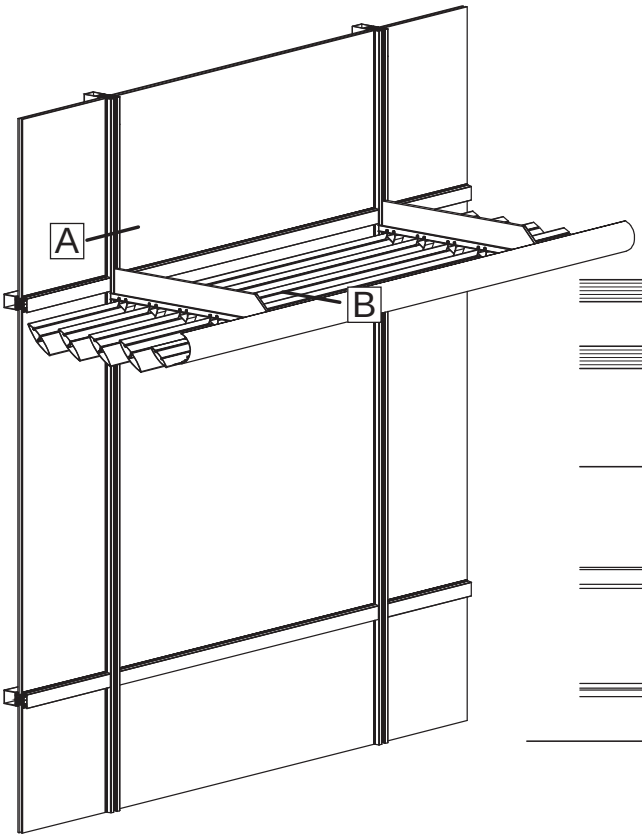
B



SC102 Blade (not shown)

GENERAL ARRANGEMENTS

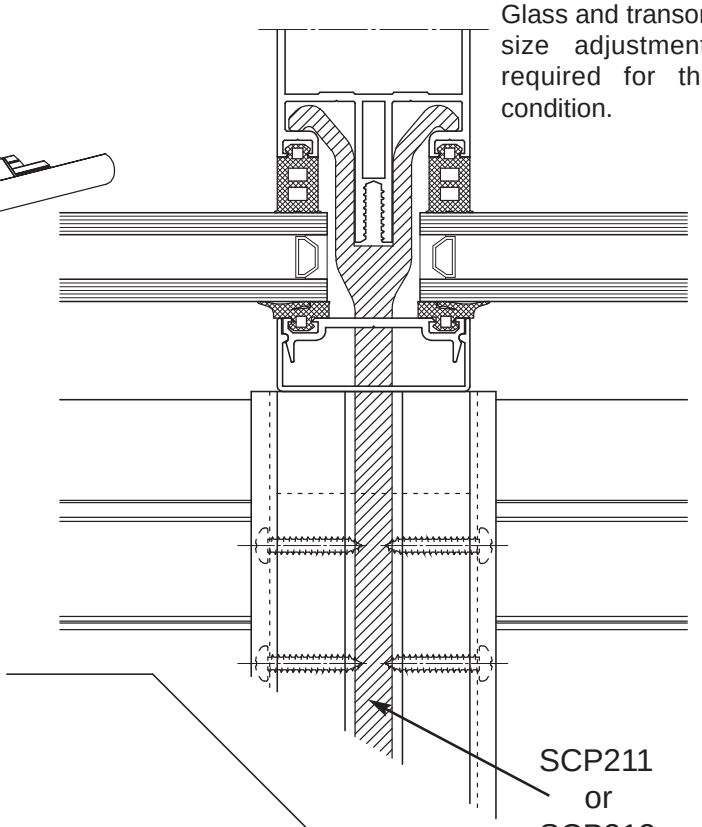
Horizontal Projecting Shading
Cantilevered - Continuous 45° Blade



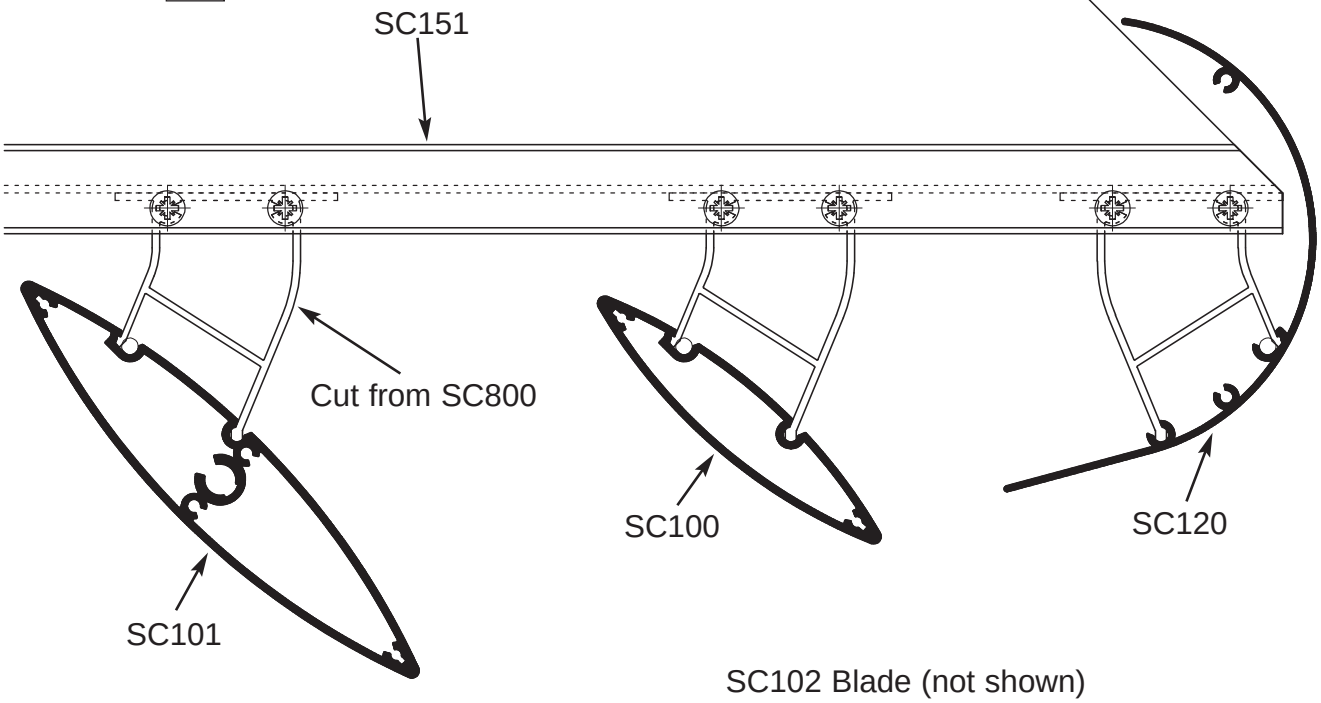
Allow 1mm expansion joint for every 1m length of blade. All expansion joints to be centrally located about a mullion.

A

! NOTE !
Glass and transom size adjustments required for this condition.



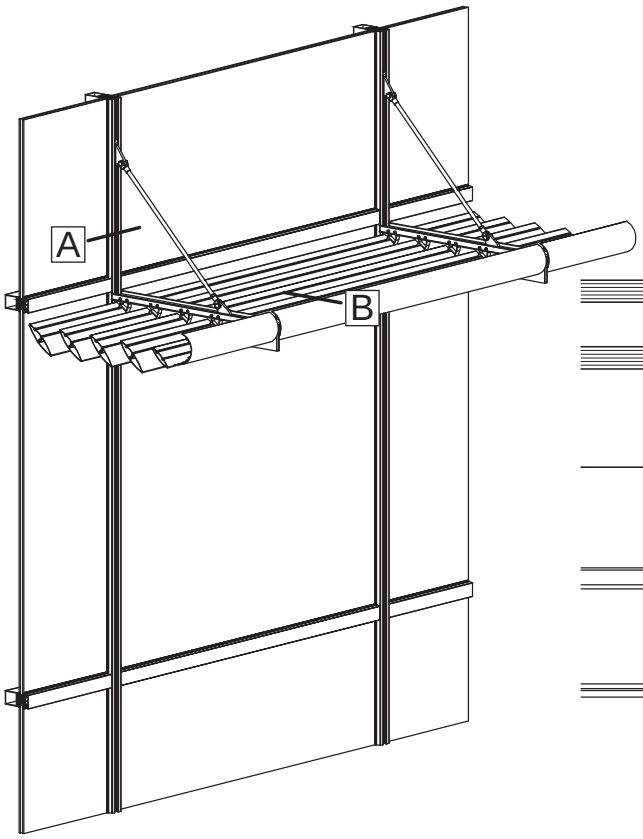
B

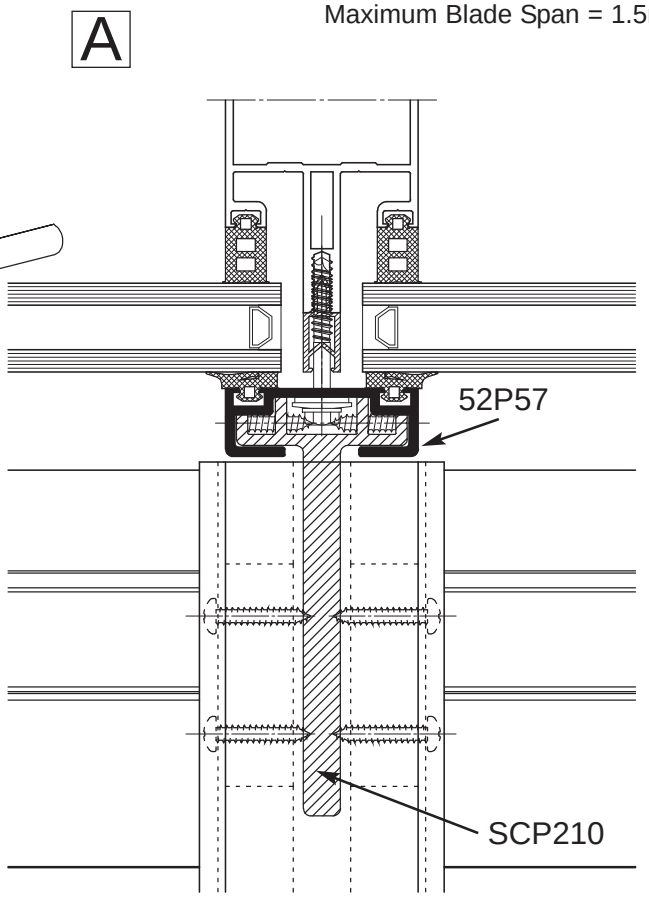


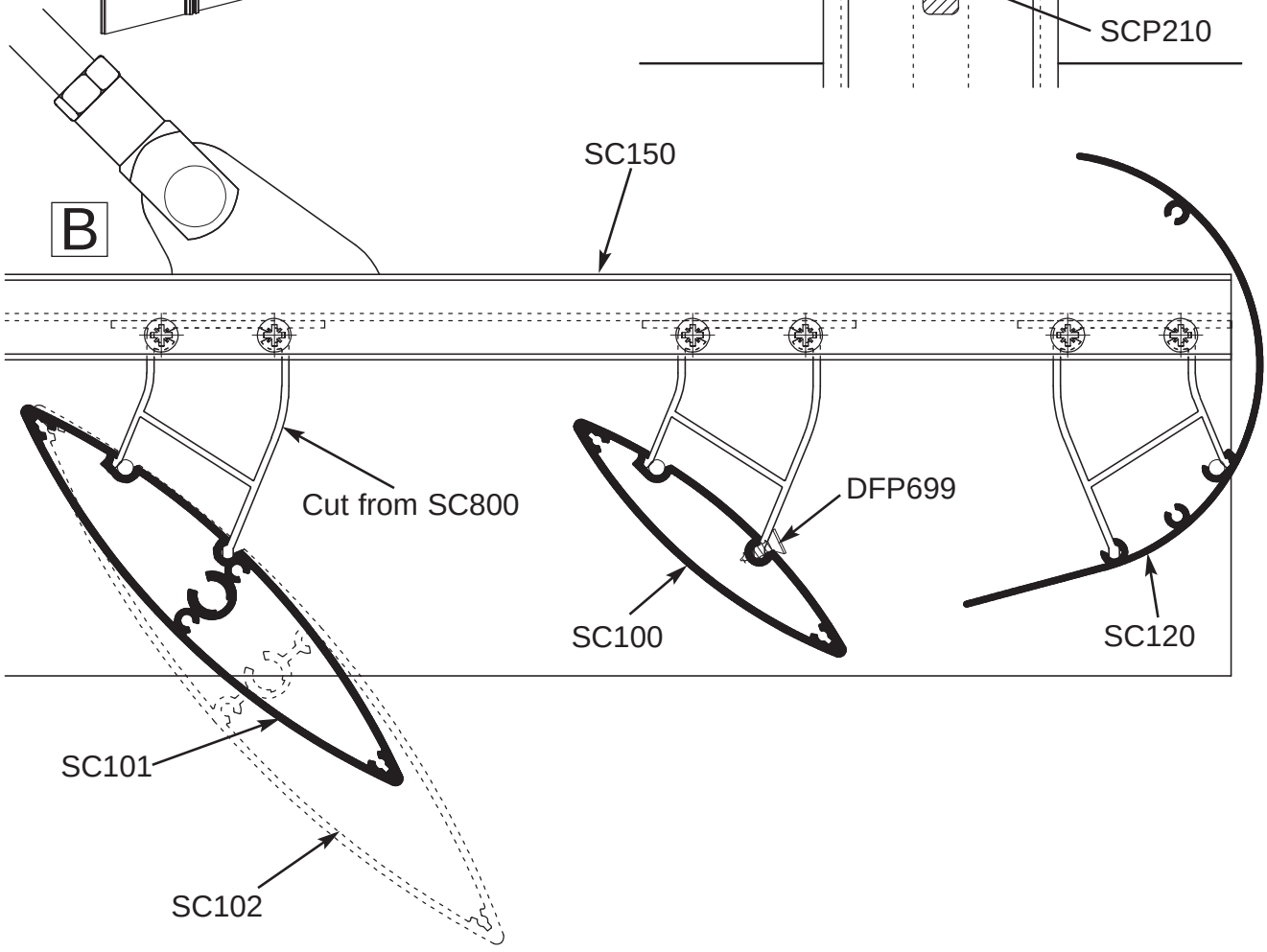
SC102 Blade (not shown)

GENERAL ARRANGEMENTS

Horizontal Projecting Shading
Braced - Intermittent 45° Blade
Maximum Blade Span = 1.5m

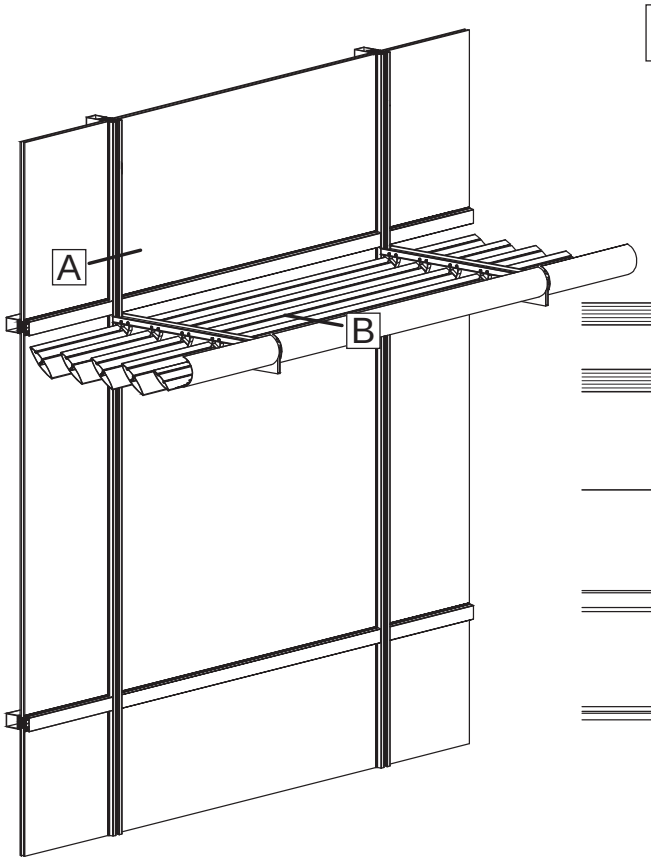




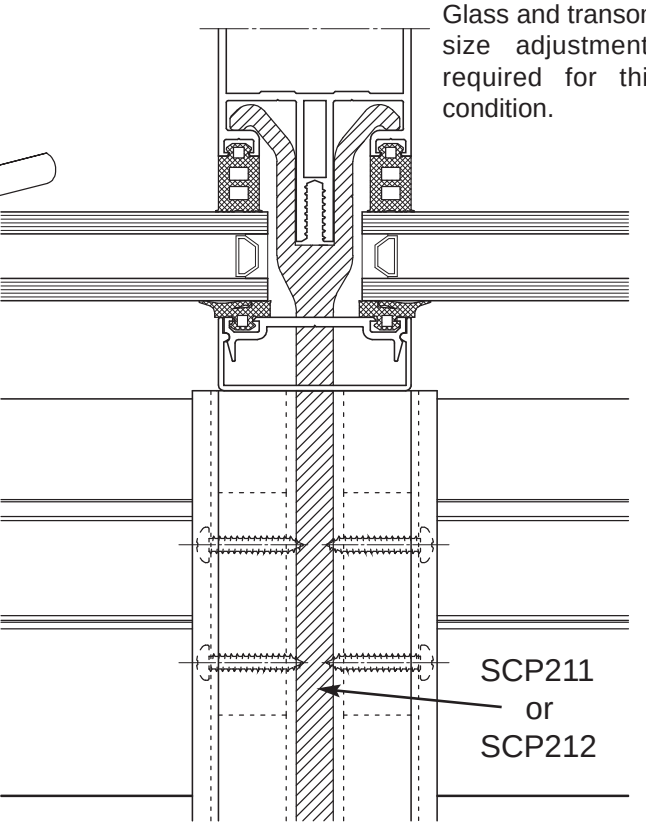


GENERAL ARRANGEMENTS

Horizontal Projecting Shading
Cantilevered - Intermittent 45° Blade
Maximum Blade Span = 1.5m

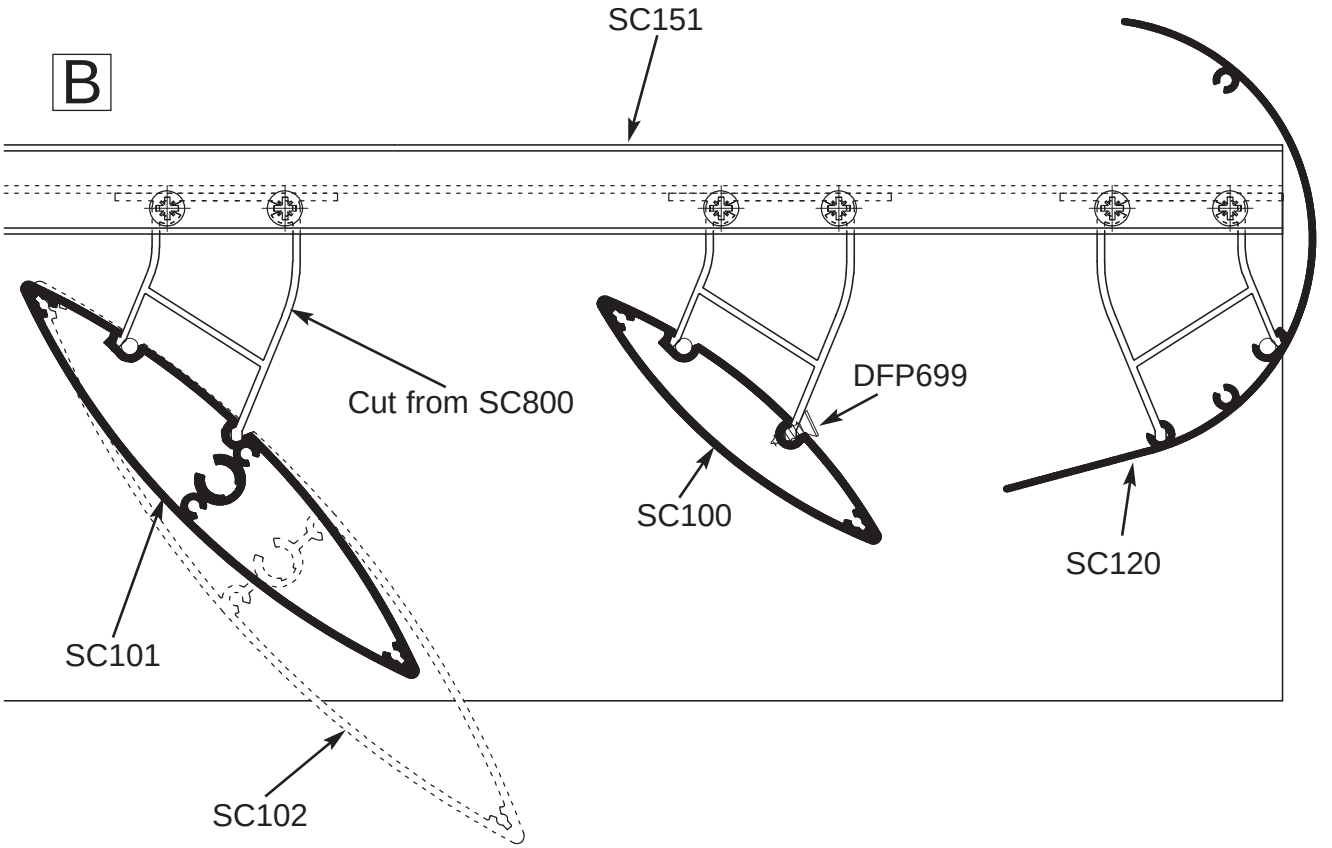


A



! NOTE !
Glass and transom size adjustments required for this condition.

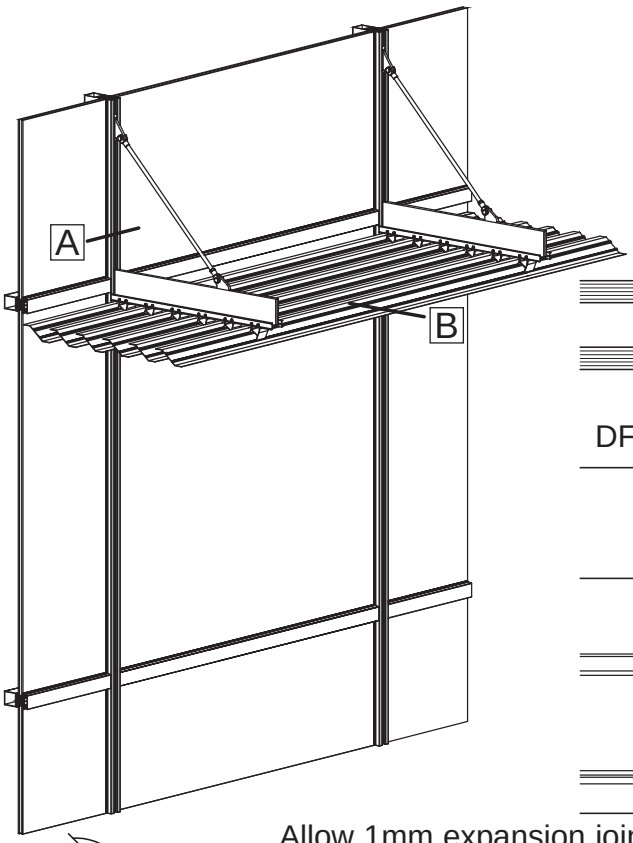
B

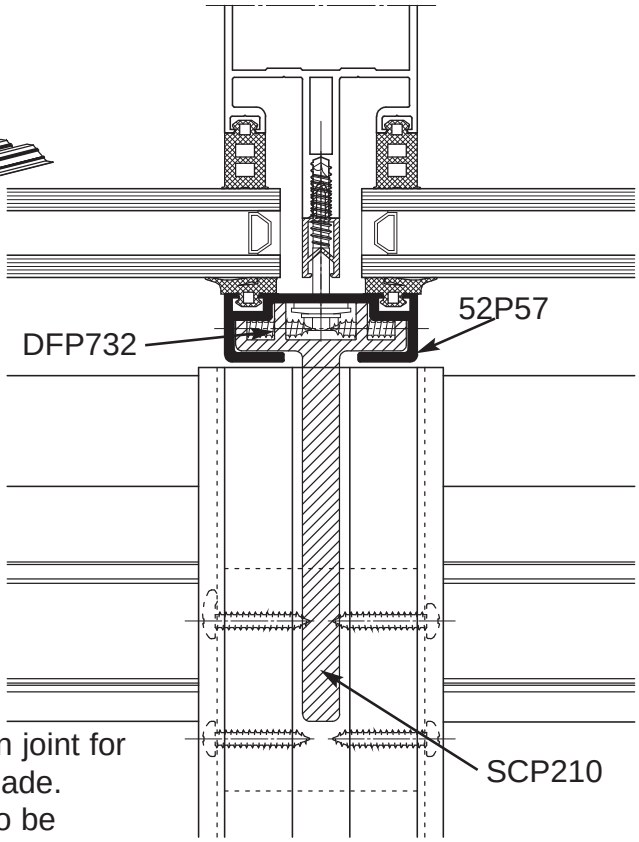


GENERAL ARRANGEMENTS

Horizontal Projecting Shading
Braced - Continuous 'Z' or 'C' Blade

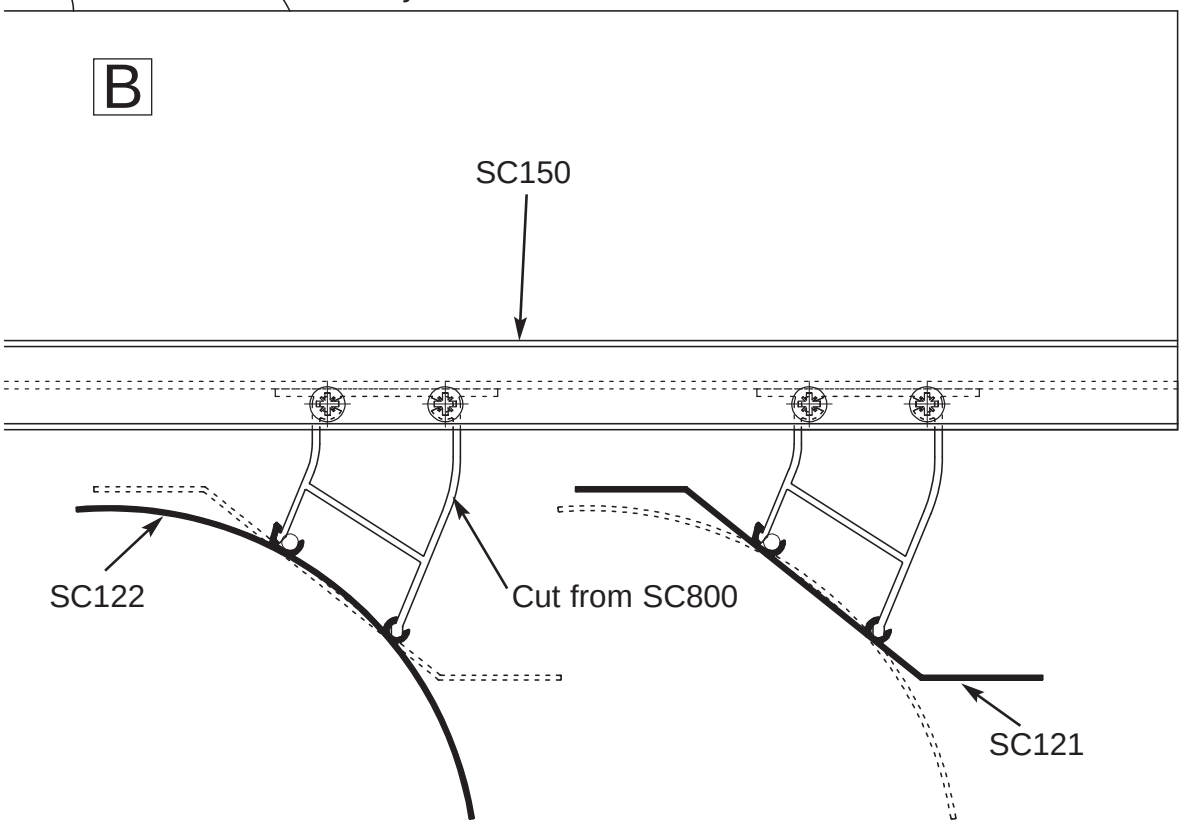
A





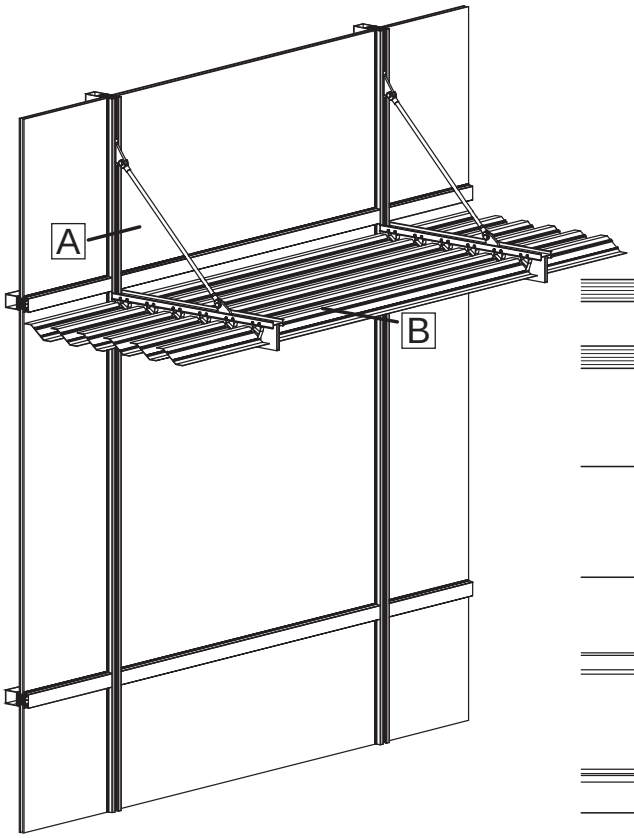
Allow 1mm expansion joint for
every 1m length of blade.
All expansion joints to be
centrally located about a mullion.

B

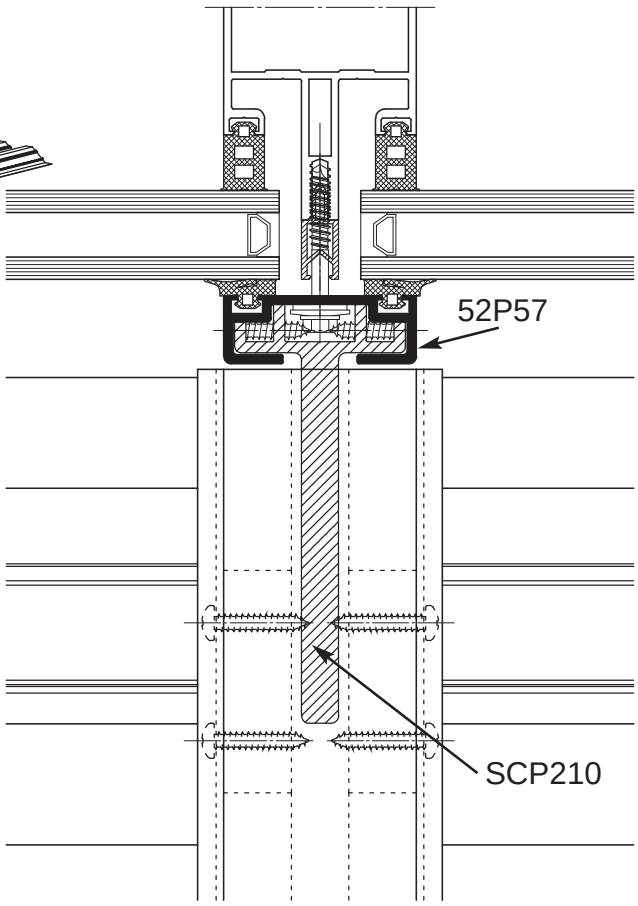


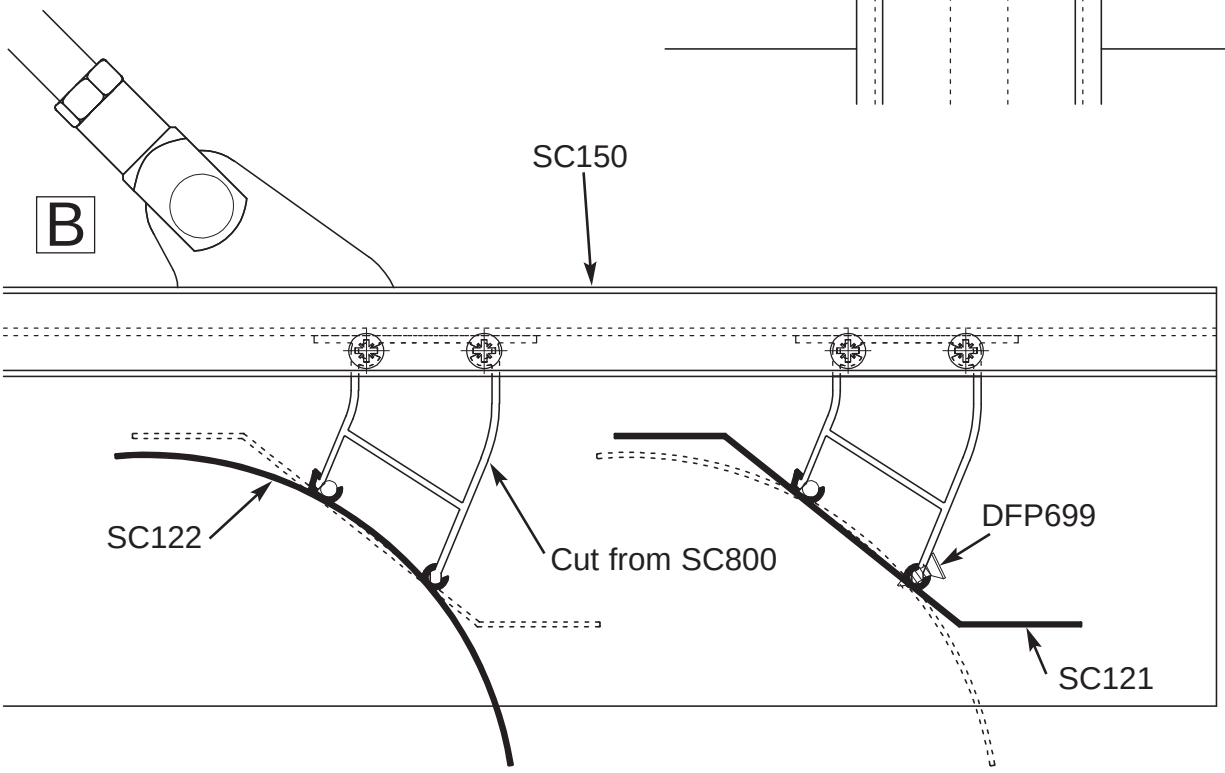
GENERAL ARRANGEMENTS

Horizontal Projecting Shading
Braced - Intermittent 'Z' or 'C' Blade
Maximum Blade Span = 1.5m



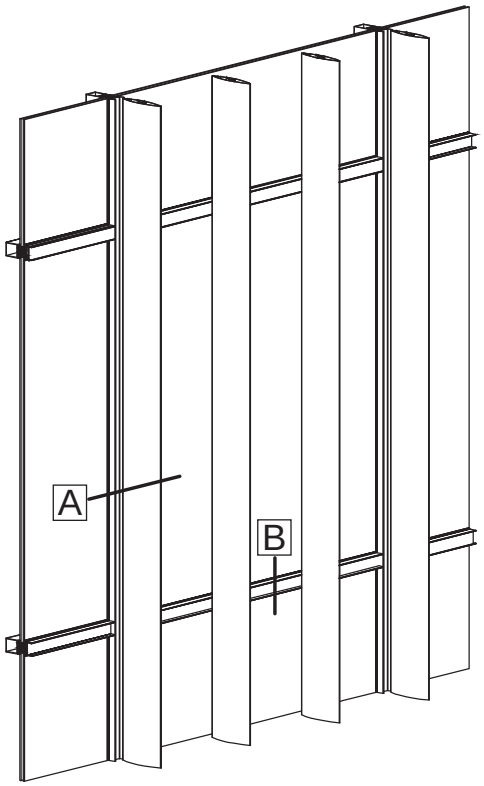
A



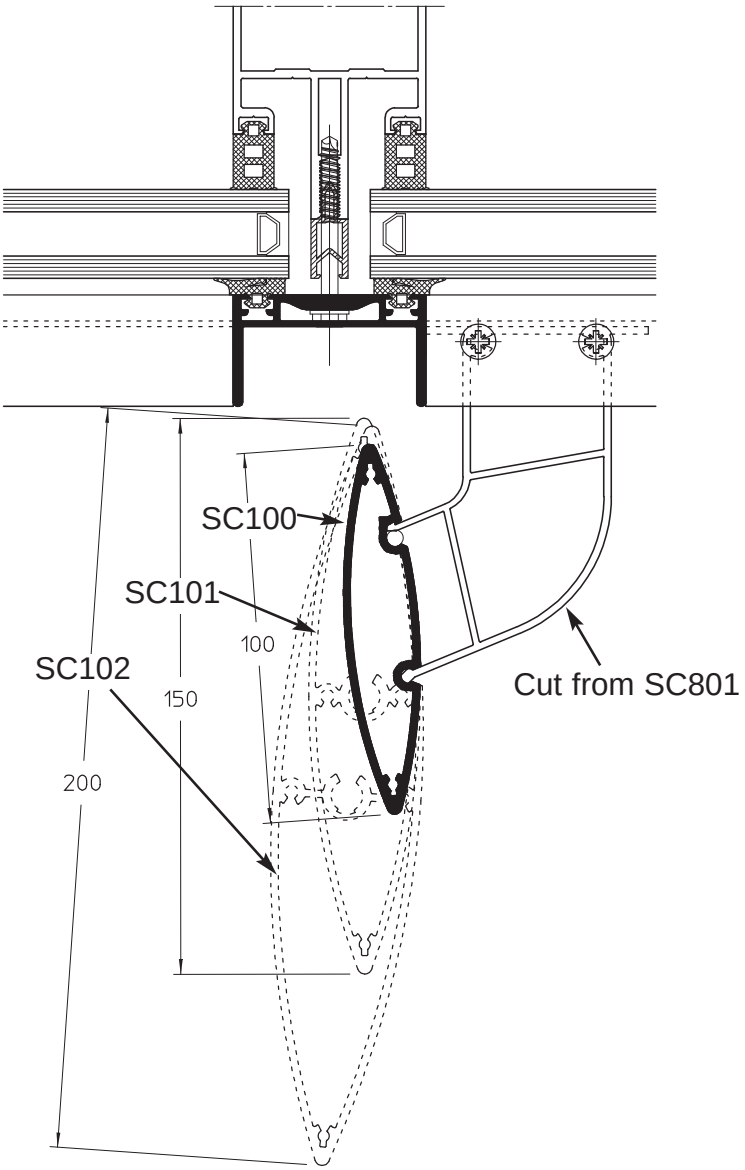


GENERAL ARRANGEMENTS

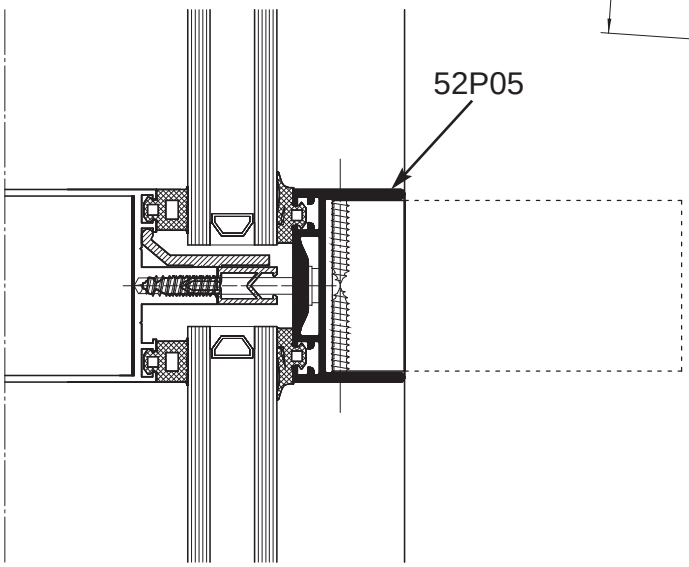
Vertical Parallel Shading
Continuous 90° Blade



A

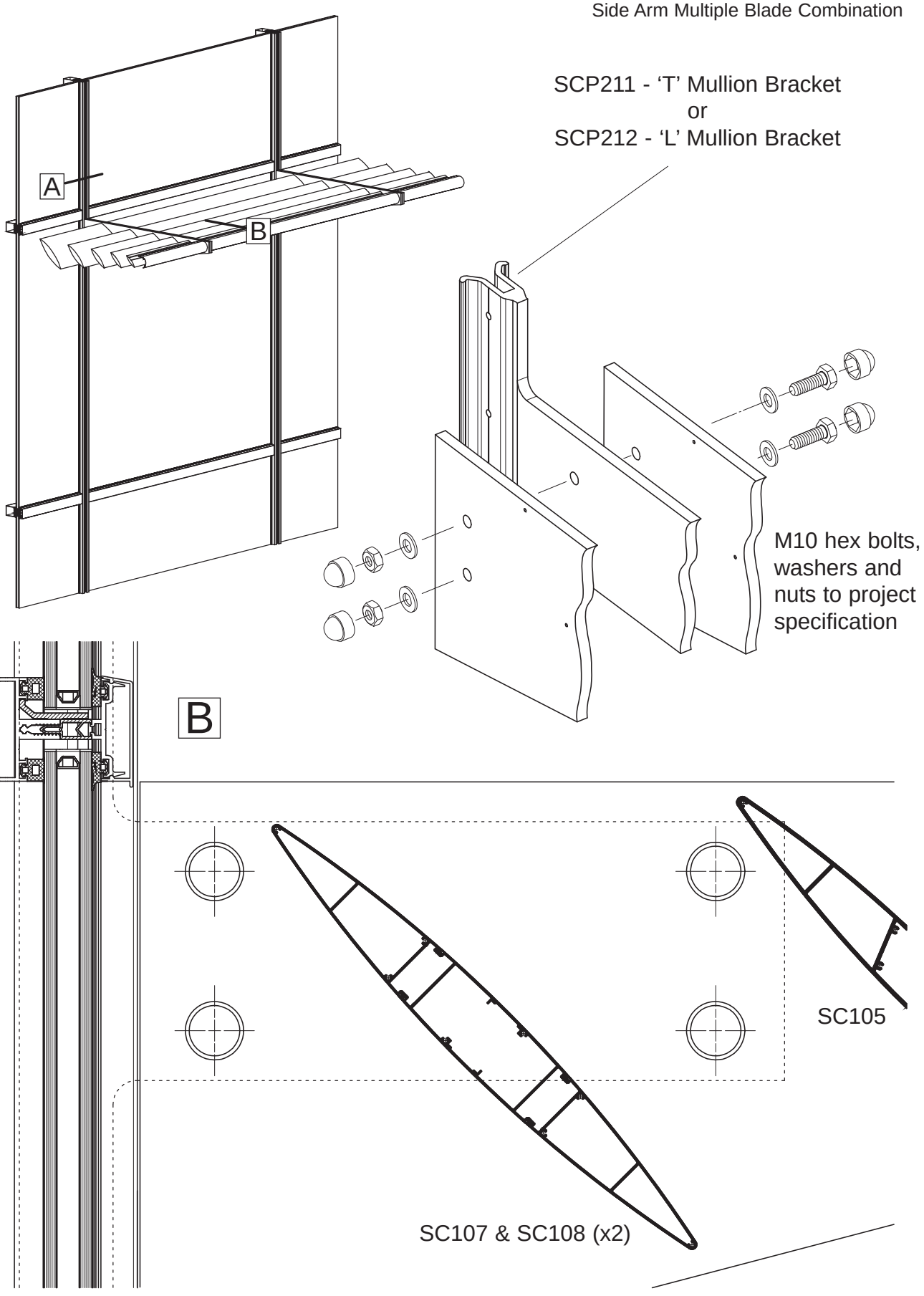


B



GENERAL ARRANGEMENTS

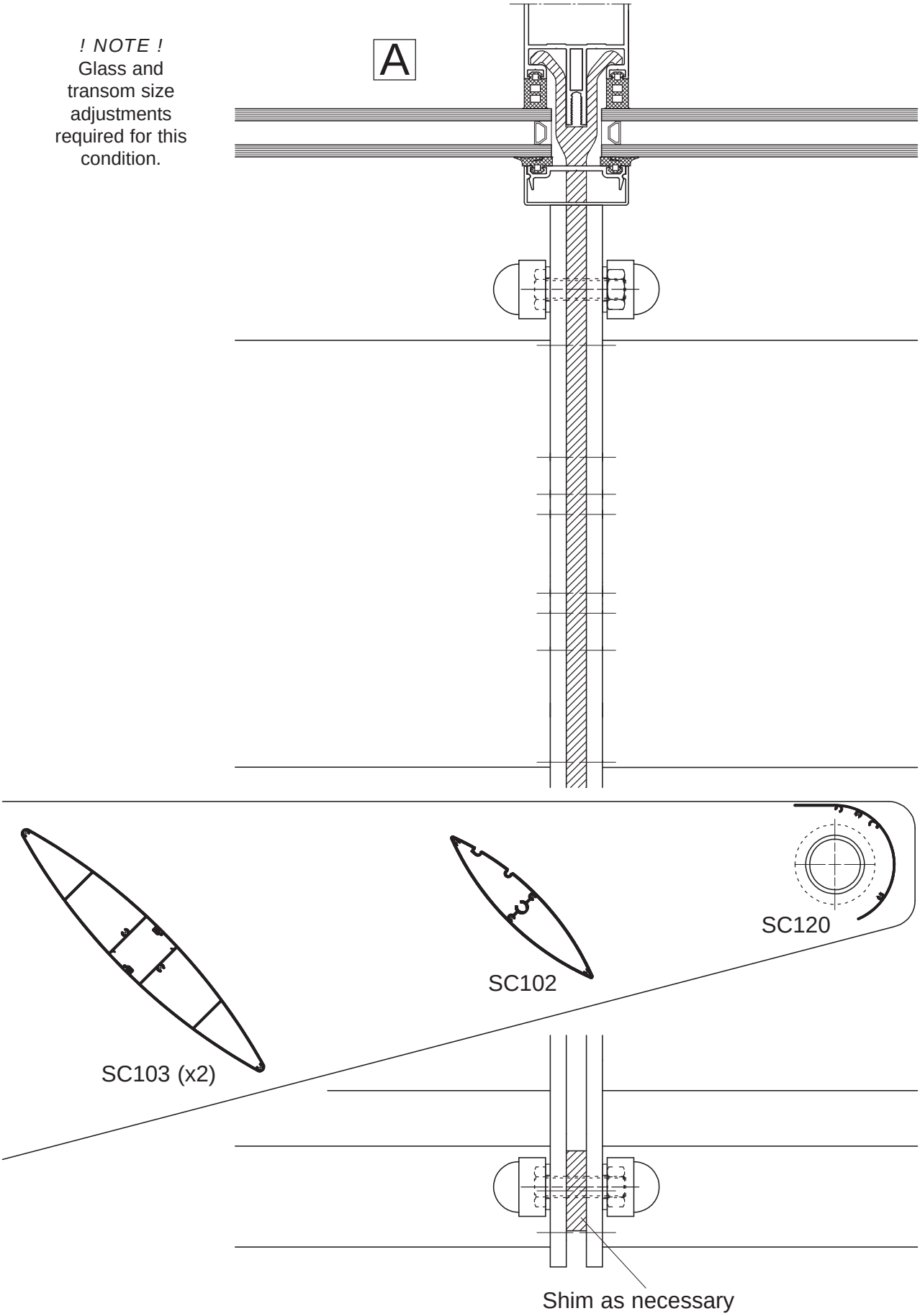
Horizontal Projecting Shading
Side Arm Multiple Blade Combination



GENERAL ARRANGEMENTS

Horizontal Projecting Shading
Side Arm Multiple Blade Combination

! NOTE !
Glass and transom size adjustments required for this condition.



THIS PAGE IS LEFT INTENTIONALLY BLANK

THIS PAGE IS LEFT INTENTIONALLY BLANK

Our policy is one of continuous development and consequently we reserve the right to vary the products and their performance specification shown in this literature without notice.

All products and systems which Sapa supply are supplied subject to Sapa's standard Terms and Conditions of Sale which may vary from time to time.

This Technical Data Sheet is for specification guidance only. It should not be relied on for manufacturing or installation details which must instead be obtained from Sapa Building Systems' Fabrication Manuals. For further assistance please contact one of our Project Consultants by calling the Marketing Department on the number below.

Brochure reference SCX97 0709

Sapa Building Systems Limited
Postal address Alexandra Way, Ashchurch, Tewkesbury, Gloucestershire GL20 8NB
Telephone 01684 853500 Fax 01684 851850
E-mail info@sapabuildingsystems.co.uk Website www.sapabuildingsystems.co.uk

sapa: buildingsystem
ARCHITECTURAL ALUMINIUM SOLUTIONS