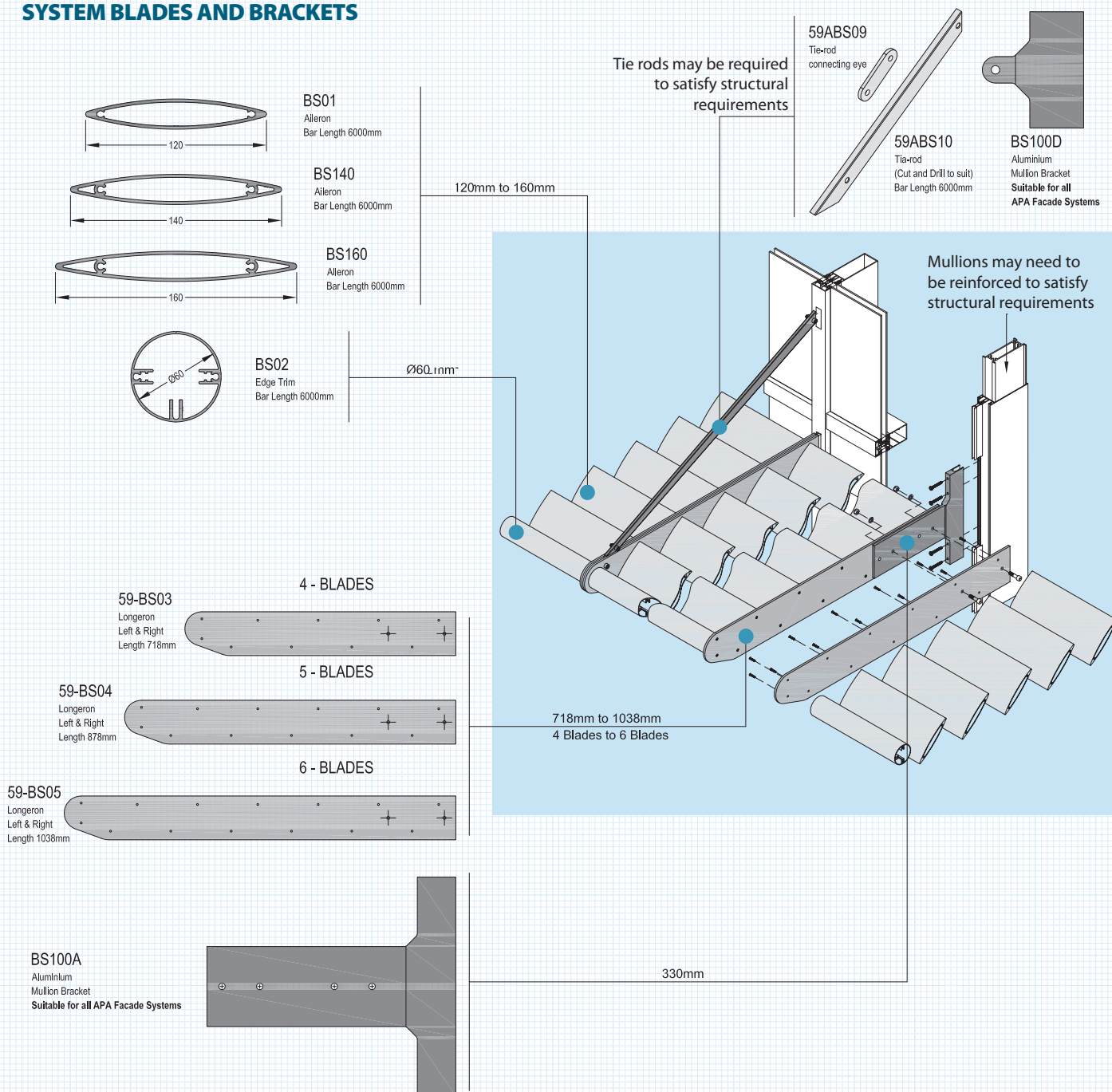


APA
FACADE
SYSTEMS



FACADE BS
SOLAR
SHADING
SYSTEMS

SYSTEM BLADES AND BRACKETS



MAX SPANS FOR BLADES

| APA Item Number | Blade Size | | Max. Blade Span in mm | | |
|-----------------|------------|--------|-----------------------|--|------|
| | Width | Height | | | 45 |
| BS01 | 120 | 20 | | | 2000 |
| BS140 | 140 | 20 | | | 2100 |
| BS160 | 160 | 20 | | | 2200 |

Max spans given are to be used for guidance only and are based on a combined snow and wind load of 0.75K_n/m². An engineer should be consulted if the parameters of the design differ from this.

Site Installation

The blades can be assembled onto side plates for connection to support arms - reducing site labour time.



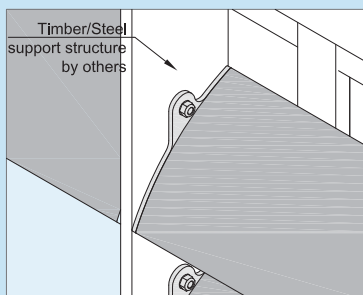
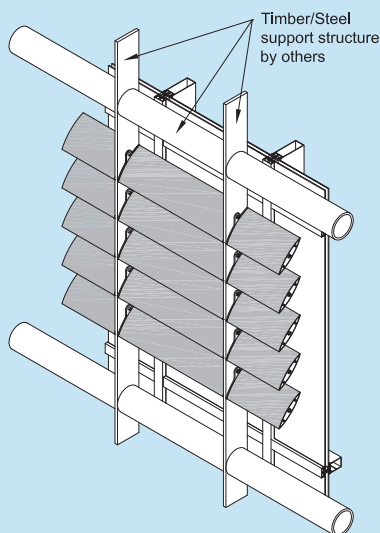
FACADE BS - VERTICAL SYSTEM

All vertical Brise Soleil panels are designed to suit the building's requirement and all are bespoke

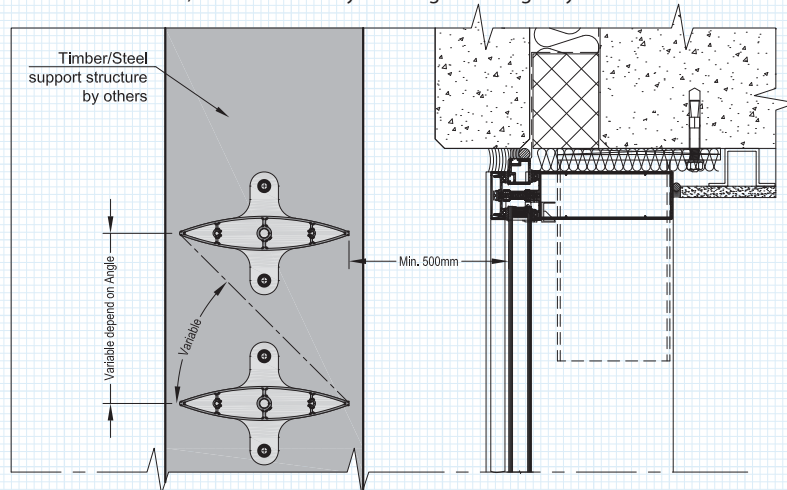
DETAILS AND VIEWS

Brackets and Blades

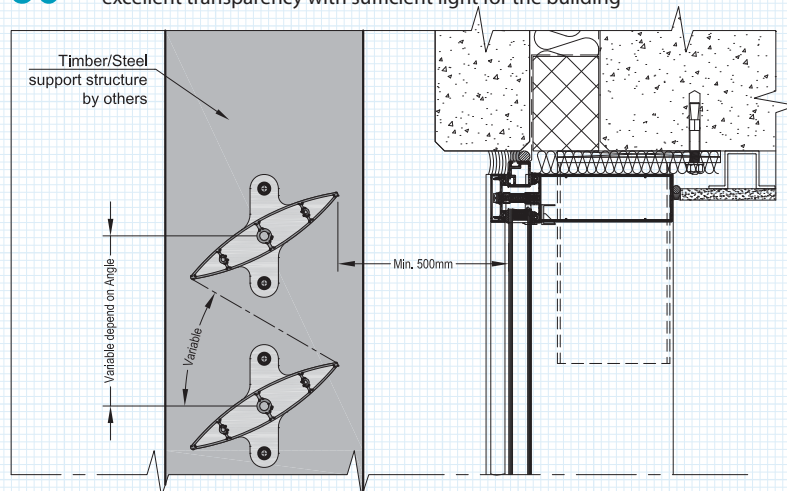
Various elliptical shaped blades ranging in size from 100mm up to 450mm, are available along with a huge variety of fixing brackets, to allow the design team flexibility. Horizontal and vertical positioning of the blades is only limited to the designer's imagination and the structural integrity of the chosen blades.



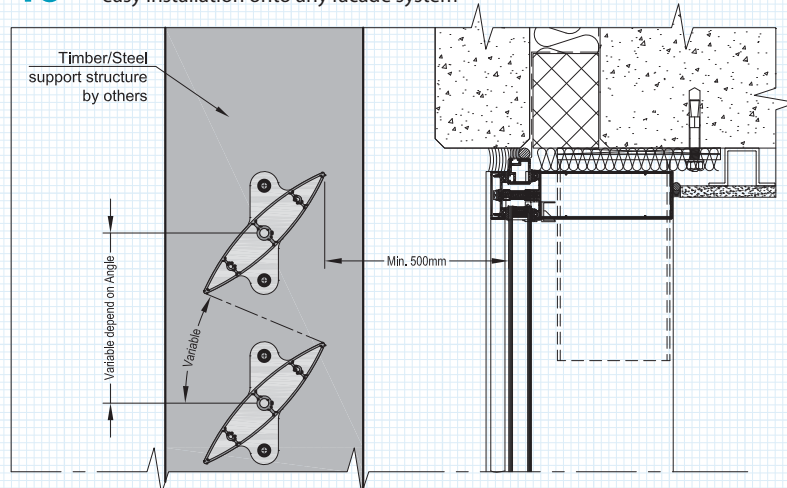
0/90° Being manufactured from polyester powder coated extruded aluminium, colour, structural stability and long term longevity are not an issue



30° Large blades allow for larger gaps between the blades, ensuring excellent transparency with sufficient light for the building



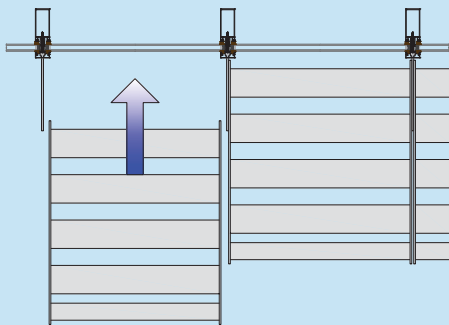
45° This Brise Soleil product range offers a system based solution enabling easy installation onto any facade system



DETAILS AND VIEWS

Site Installation

The unit would normally be pre-assembled in the workshop and fixed as one piece on site as illustrated below

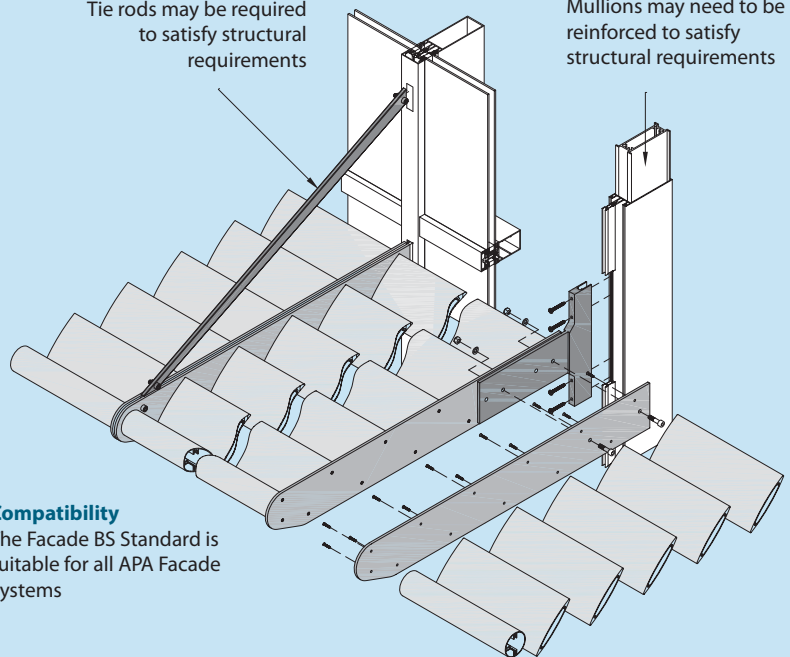


Tie rods may be required to satisfy structural requirements

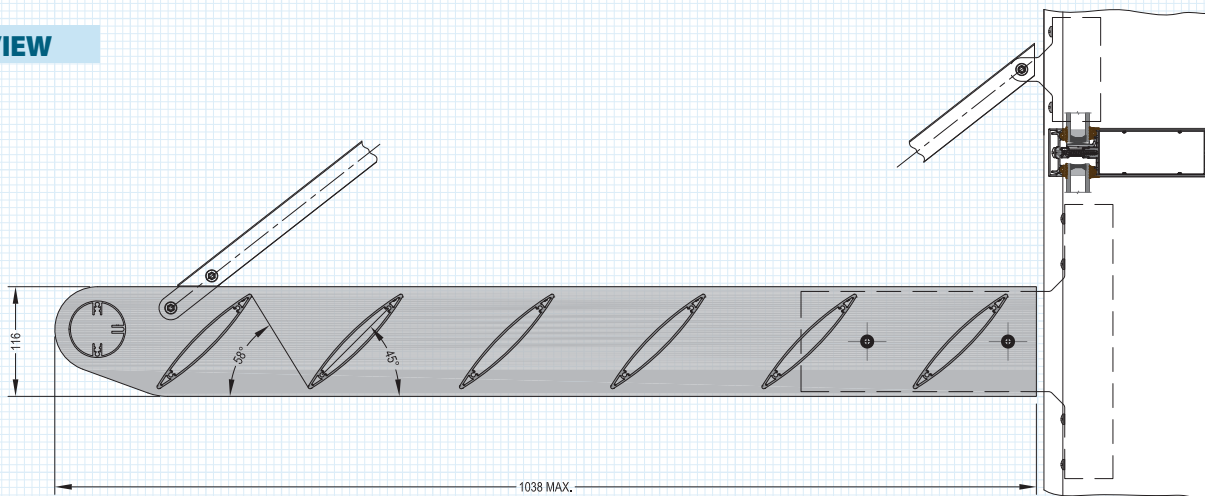
Mullions may need to be reinforced to satisfy structural requirements

Compatibility

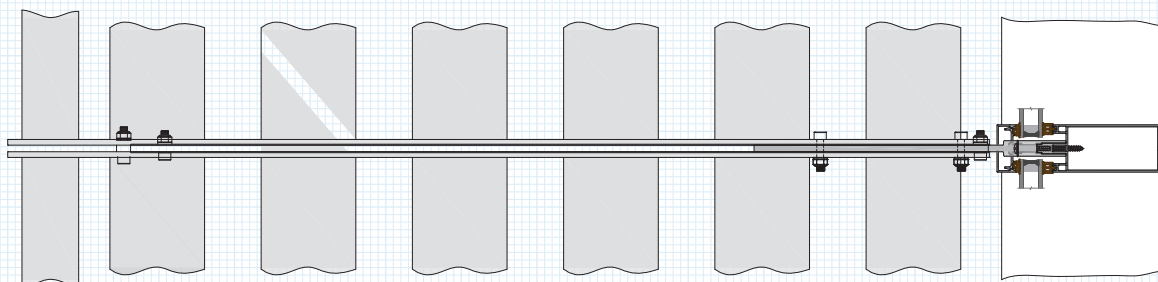
The Facade BS Standard is suitable for all APA Facade Systems



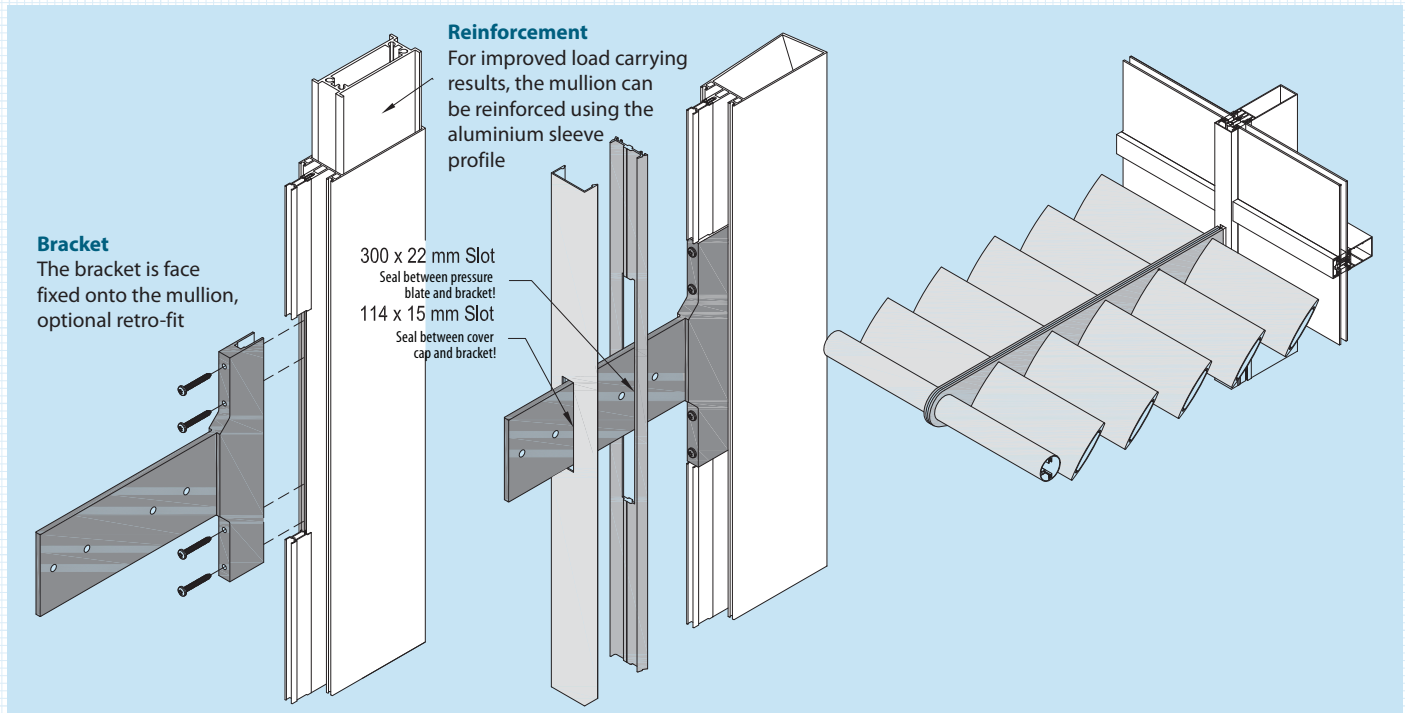
SIDE VIEW



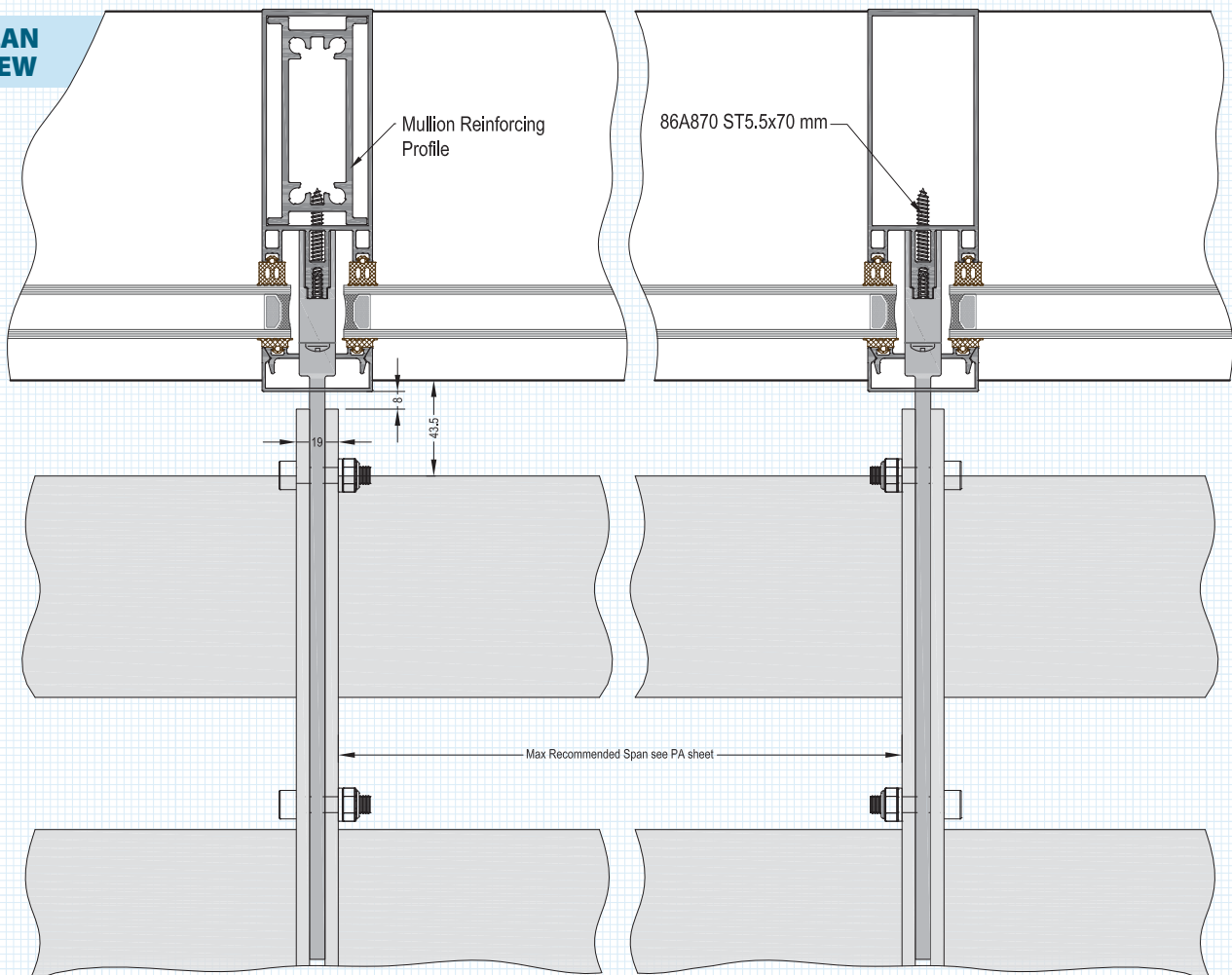
PLAN VIEW



DETAILS AND VIEWS



PLAN VIEW



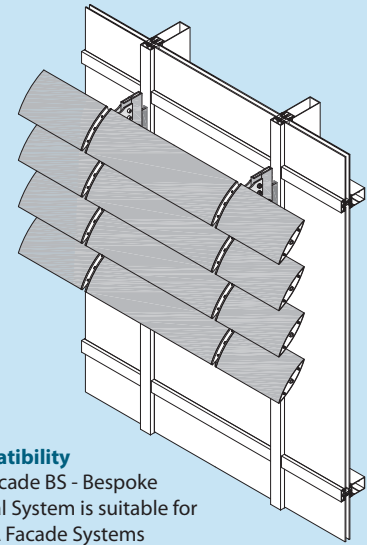
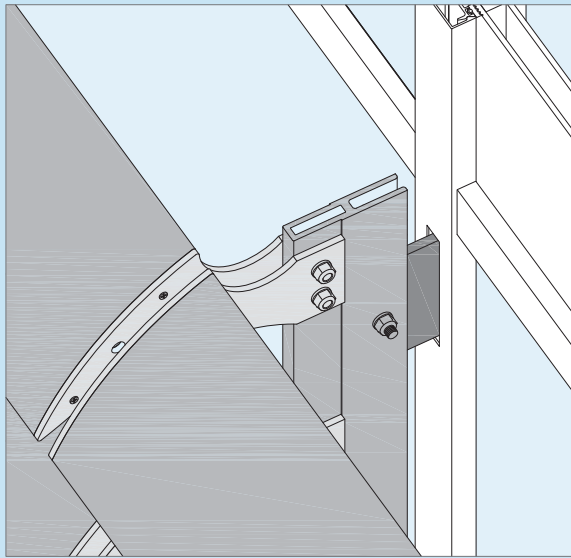
FACADE BS - VERTICAL SYSTEM

All vertical Brise Soleil panels are designed to suit the building's requirement and all are bespoke

DETAILS AND VIEWS

Brackets and Blades

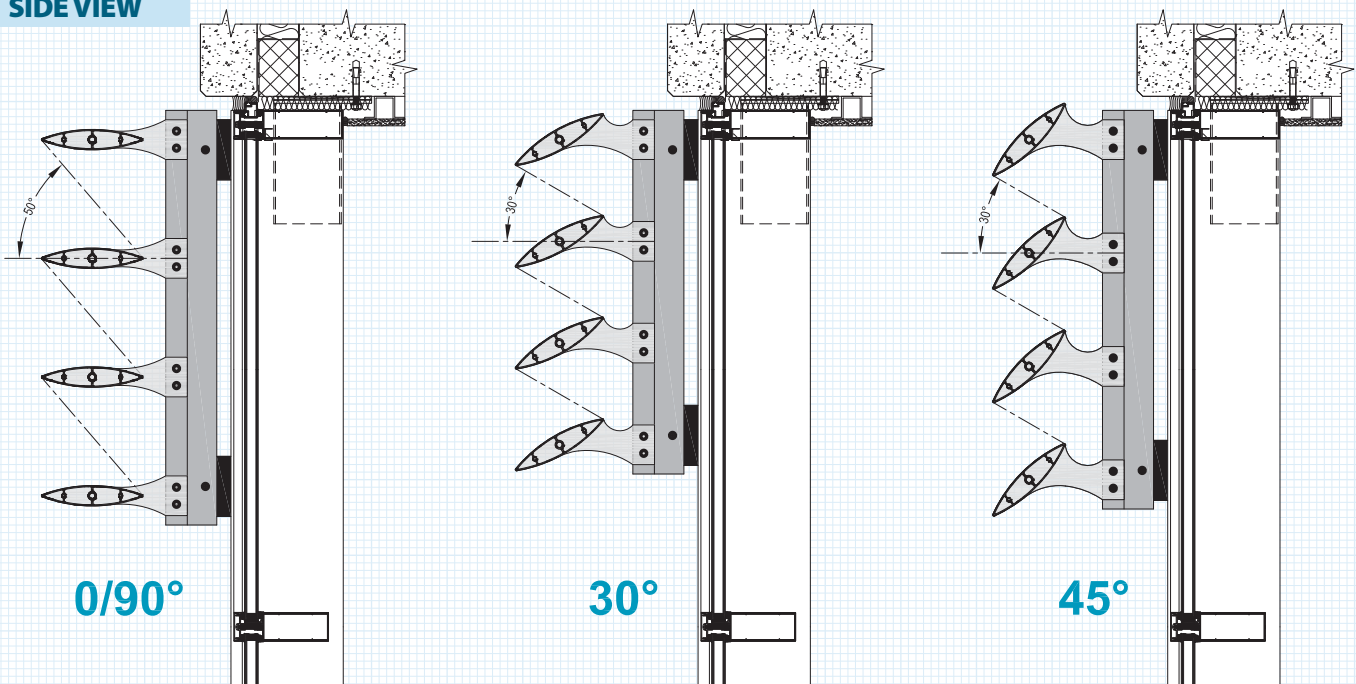
All blades have a variety of plate brackets pitched at different angles. These plates are fixed to the end of the blades by stainless steel screws (PanHead No.5.5x38mm) into extruded screw grooves in the blades. The vertical runner which connects the blades, can be fixed to curtain wall facades or different structures which surround punched open windows, such as brick or block walls, cladding, etc.



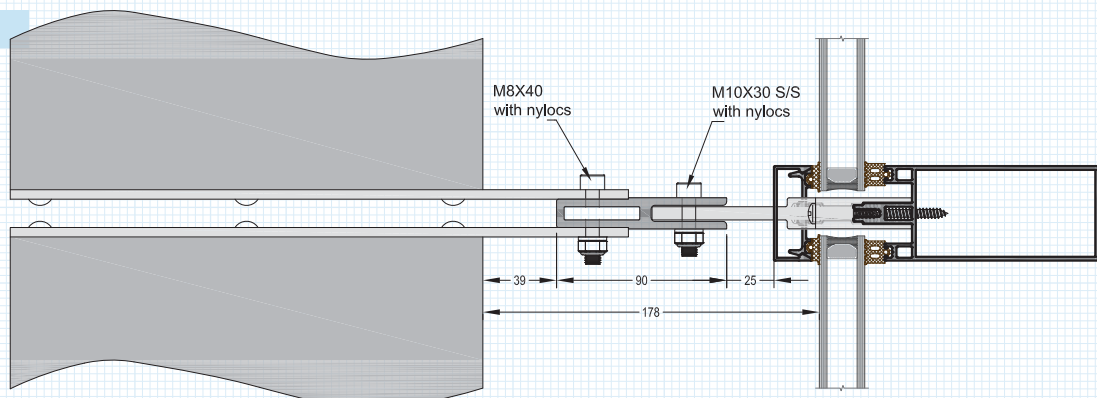
Compatibility

The Facade BS - Bespoke Vertical System is suitable for all APA Facade Systems

SIDE VIEW



PLAN VIEW

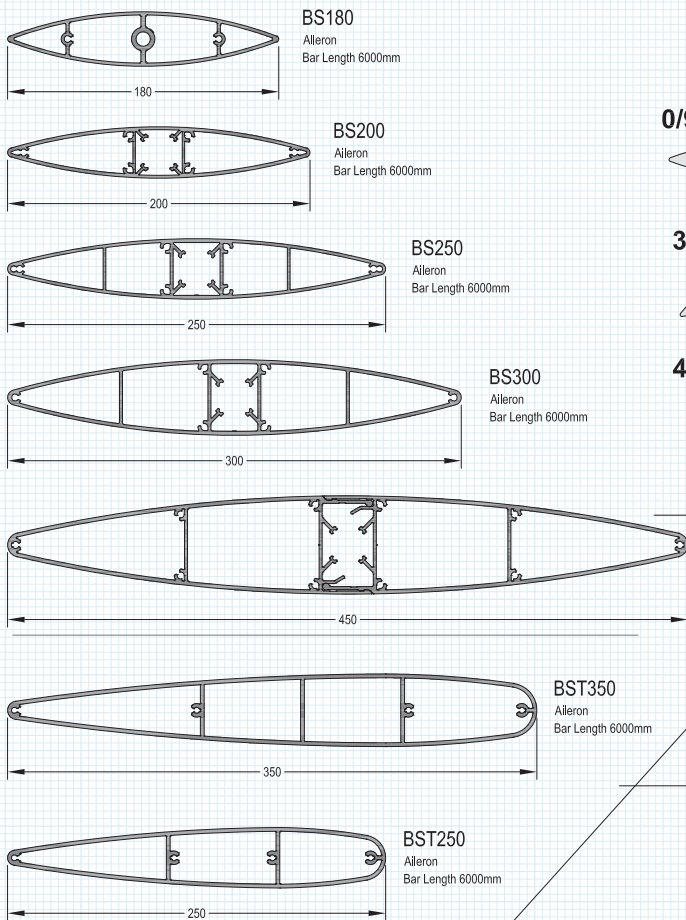


FACADE BS - VERTICAL SYSTEM

All vertical Brise Soleil panels are designed to suit the building's requirement and all are bespoke

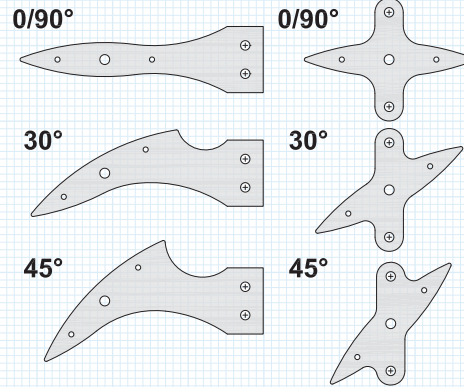


SYSTEM BLADES AND BRACKETS



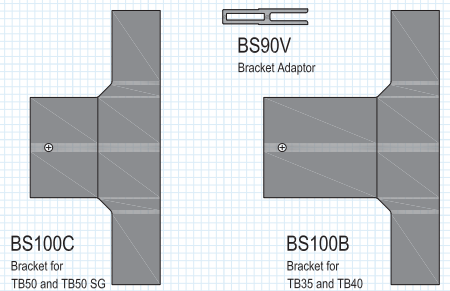
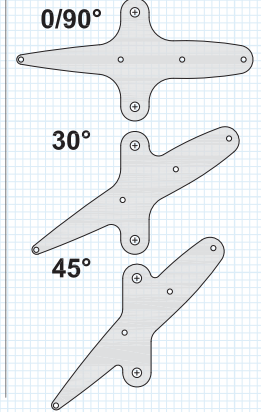
BRACKETS

available for all Blades
BS180 to BS450



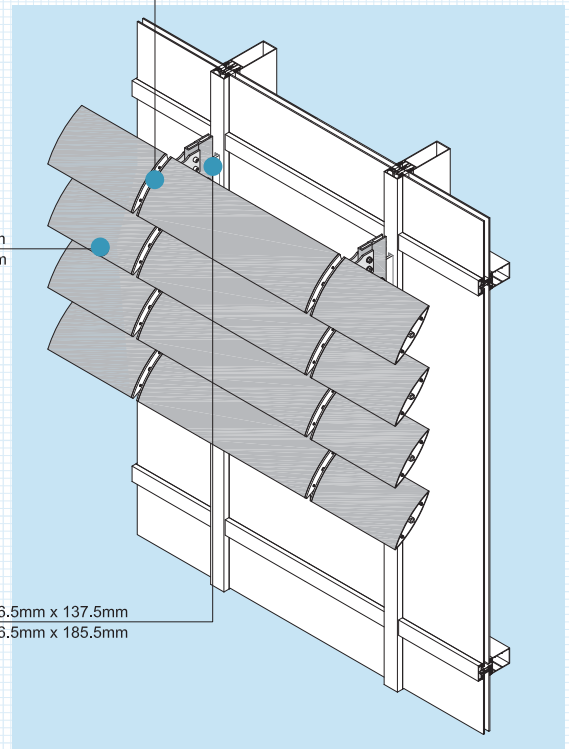
BRACKETS

available for all Blades
BST250 & BST350



180mm to 450mm
250mm to 350mm
(terar shape)

TB50 & TB50 SG Bracket 16.5mm x 137.5mm
TB35 & TB40 SG Bracket 16.5mm x 185.5mm



MAX SPANS FOR BLADES IN A HORIZONTAL POSITION

| APA Item Number | Blade Size | | Max. Blade Span in mm | | |
|-----------------|------------|--------|-----------------------|------|------|
| | Width | Height | 0/90 | 30 | 45 |
| BS180 | 180 | 36 | 2750 | 2725 | 2675 |
| BS200 | 200 | 34 | 3365 | 3325 | 3275 |
| BS250 | 250 | 40 | 3825 | 3800 | 3725 |
| BS300 | 300 | 50 | 4400 | 4380 | 4300 |
| BS450 | 450 | 65 | 5500 | 5400 | 5100 |
| BST250 | 250 | 40 | 3800 | 3775 | 3700 |
| BST350 | 350 | 48 | 5000 | 4900 | 4875 |

Max spans given are to be used for guidance only and are based on a combined snow and wind load of 0.75Kn/m². An engineer should be consulted if the parameters of the design differ from this.

Site Installation

Horizontal or vertical positioning of the blades is limited only to the designer's imagination.



Introduction

The use of Brise Soleil or Sun Screens to reduce solar heat gain through glazed facades is now recognised as an important consideration in modern buildings.

Countries situated in northern latitudes such as Ireland, must deal with the sun's angle being lower, which results in more exposure through vertical glazing causing greater heat gains.

Functions

The elliptical design of the blades reduces the susceptibility of the Brise Soleil to wind load, allowing it to be used on high rise buildings and in all weather conditions.

Both vertical and horizontal Brise Soleil provide highly effective shading in the summer with uninterrupted views, whilst minimising the effect on light transmission in the winter.

Most bespoke and traditional Brise Soleil or solar shading panels can be manufactured off-site, into modular or unitised forms, ensuring speedy installation.

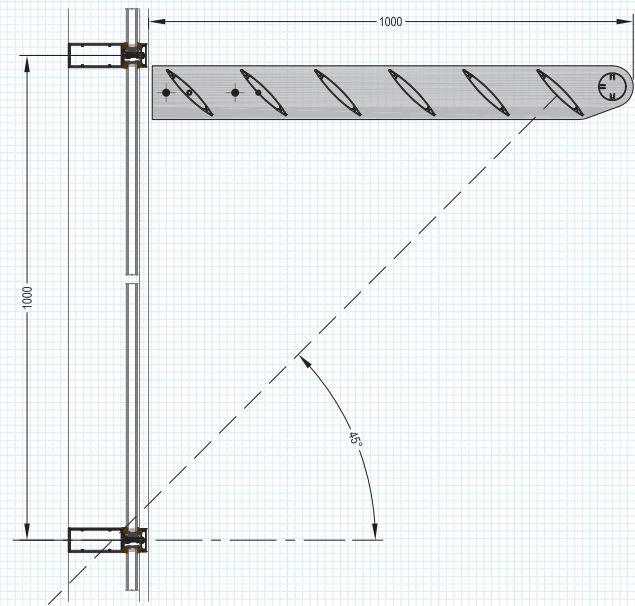
The system has an array of accessories allowing for cost effective project specific bespoke solar shading designs to be incorporated into the facade.

When designing horizontal solar shading the length, width and projected dimensions of horizontal sunscreens will depend on a number of factors, one being the time of year. For south facing elevations in Ireland the highest sun angle occurs at midday during the month of June. The angle of the sun rises during the months of April and May peaking in June then declining through the remainder of the year.

Approximate angle of the sun at midday in Ireland (based on 52° latitude)

| | |
|-----------|-----|
| April | 50° |
| May | 58° |
| June | 62° |
| July | 58° |
| August | 50° |
| September | 38° |

Due to the design variations, which can be incorporated into the design of solar shading the information contained in this brochure, is to be used for guidance only. All static values for the blades along with bracket design and fixings must be evaluated on a project-by-project basis. In this brochure the photographs used do not always reflect the products illustrated.



Design

Horizontal or vertical positioning of blades is limited to the designer's imagination and the structural integrity of the chosen blades.

Various elliptical-shaped blades ranging in size from 100mm up to 450mm are available.



TURNING ARCHITECTURAL DESIGN INTO REALITY

- Curtain wall systems
- Modular framed systems
- High performance window and door systems
- Structurally bonded framed systems
- Brise Soleil