Hi-LiGHT
INDUSTRIES PTY LTD
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LOCKER
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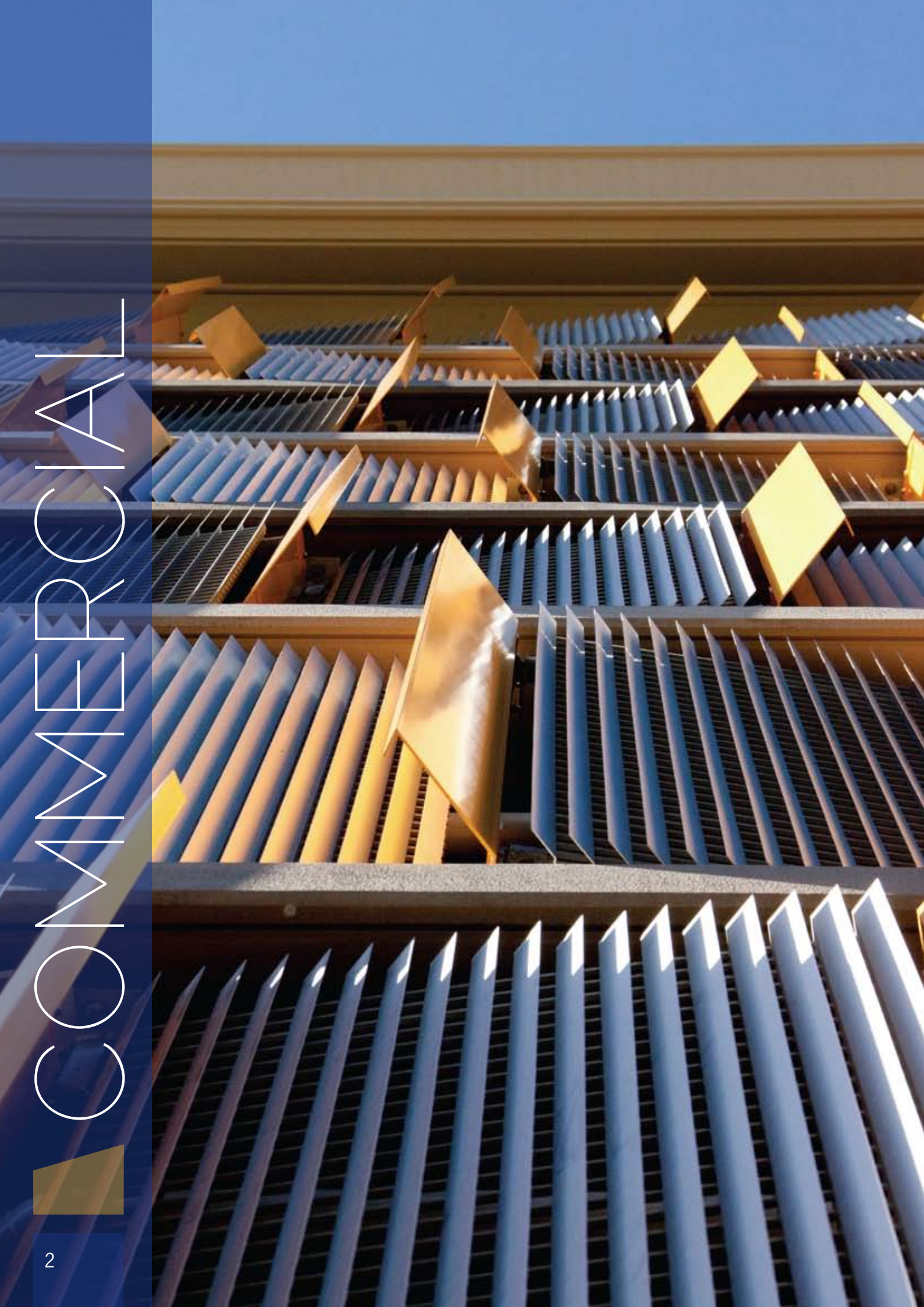
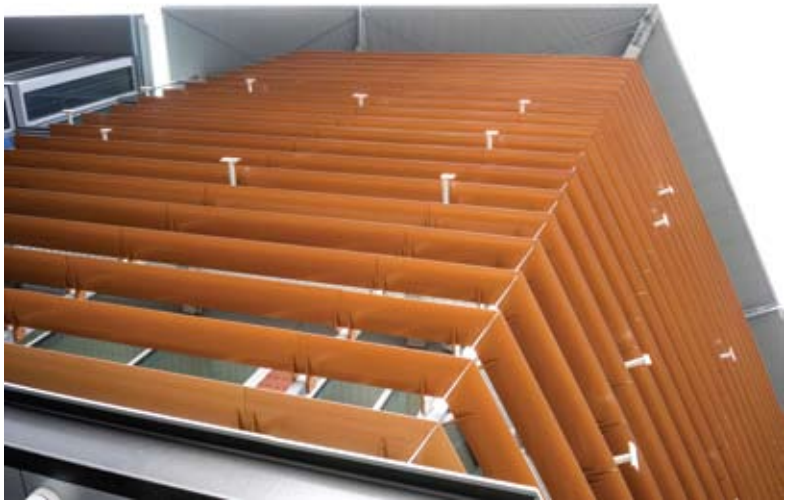
COMMERCIAL



Aluminium louvres and grating are often utilised in commercial projects in a number of formats; including screening for privacy, or solar protection, providing a secure open space in high rise office buildings and towers, protecting the airflow and equipment for air conditioning, whether internal or external, or safe access. The effective functionality of these applications must balance with an aesthetically pleasing, textural design element. The design flexibility afforded by using aluminium louvres, grating, blades and fins is evident in the ability to either blend the screening in, with neutral tones or create a striking design statement.



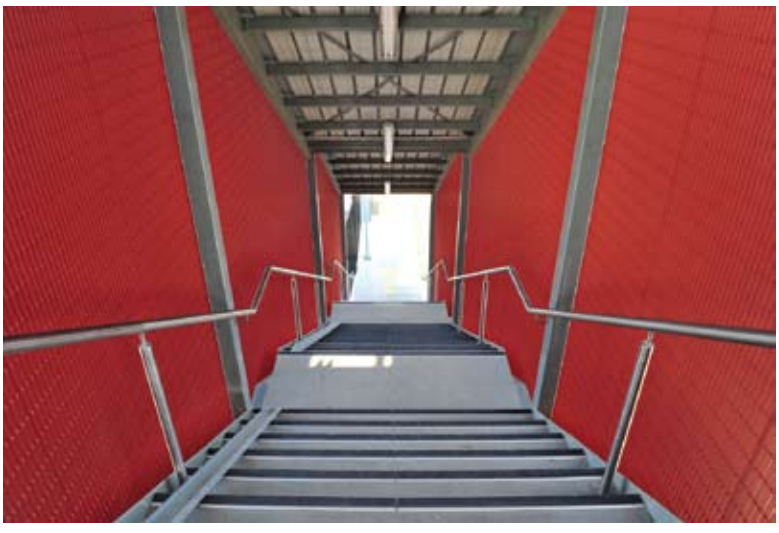
EDUCATION

Our schools and universities are tackling the issue of sustainability head on, both within the curriculum and the design of their facilities. Educational institutions often have a better understanding of the implications of preventing the solar heat hitting the façade while still allowing the winter sun to warm the building. Likewise, Educational buildings are increasingly design conscious; incorporating every element possible to maximise the learning experience; a delicate balance between calm and inspiration.

INFRASTRUCTURE

Major infrastructure projects utilise aluminium grating, louvres, blades or fins in a variety of functions. Train stations, highway and bridge walkway overpasses prefer the open lightweight appearance of grating to protect pedestrians and prevents falls; while also filtering natural light and maximising airflow. Hi-Light's product range can provide sun shading benefits to passengers and buildings improving comfort and performance.

Hi-light works with a number of landscape architects and local councils to enhance the solar protection elements in parks, nature reserves, beach shelters and a variety of civil applications.



RETAIL

Retail applications utilise grating and louvres to allow filtered natural light to enter the space. In large open spaces, particularly incorporating glass atriums, the prevention of solar heat gain, can pay dividends for the facility manager and vendors alike. In addition, grating and louvres can be utilised to screen areas and create intimate sub-spaces or installed in open ceiling spaces to provide acoustic benefits. Likewise louvre, grating and blade profiles can provide functional benefits to screen off amenities and machinery, protecting the general public, and providing an aesthetic façade to an important functional area.

INTERIORS

Many interior applications have utilised the versatility of Hi-light aluminium louvres and grating to add texture and depth. Louvres provide a smart finish over heating or cooling vents, without restricting the airflow or can camouflage ducting and wires in an open ceiling space. The Hi-light range provides acoustic benefits when installed in a large open ceiling cavity, reducing the bounce of audio waves. Aluminium's light weight means it can be installed easily in internal applications, while the flexibility of the material provides an extensive colour pallet, either anodised or powder coated.

RESIDENTIAL

High end residential projects are increasingly referencing commercial products and ideas, incorporating them into the residential setting with fantastic results. The intensifying requirement for privacy in multi-residential buildings and protection from solar heat across the nation, is creating demand for aluminium grating, louvres, blades and fins. Hi-Light's range of aluminium grating and louvres, elliptical blades and fins have been utilised extensively in residential applications, in both functional and aesthetic treatments.

SENTINEL
LOUVRES & GRATINGS

Sentinel

Swaged Louvre & Grating Profiles

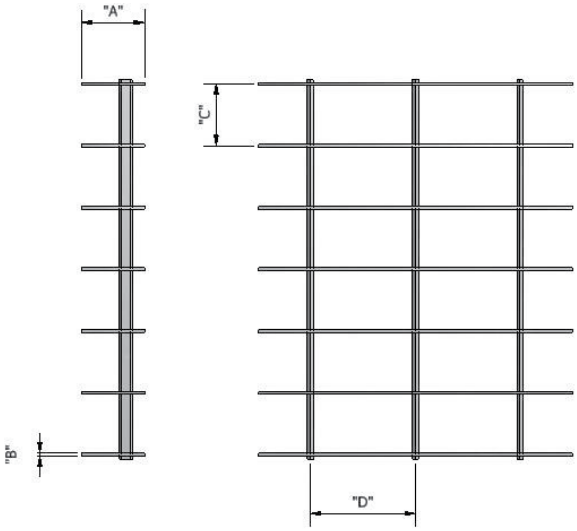
- Cyclone tested
- Large spans
- Variety of louvre and grating profiles available

Hi-Light Sentinel grating and louvre products have been at the forefront of the sunscreening market for decades. Backed by a patented design, Hi-Light understands the nuances of balancing solar protection and wind load with design intent. The Sentinel range can also be utilised for privacy screening, car park screens and low level security.

Sentinel Grating profiles are available to suit any application, including variations in cross and load bar spacing that provide variation in visual appearance, air flow and solar protection. Sentinel grating is available with enough strength to carry pedestrian loads, ensuring the sunscreens can double as an access point for maintenance, and cleaning.

Sentinel Louvres also encapsulate a large variety of options, with spacings, support structures and louvre shapes able to be adapted to suit the site and project requirements.

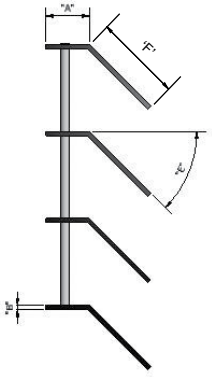
PERSPECTIVE VIEW		SECTION & FRONT VIEW	
"A"	"B"	"C"	"D"
Load Bar Size	Load Bar Thickness	Load Bar Pitch	Cross Bar Pitch
25mm – 100mm	3mm or 5mm	30mm – 150mm	50mm or 100mm

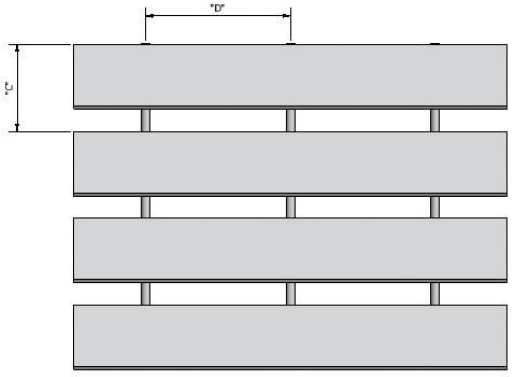


- Consult a technical representative for information regarding span capabilities of these products before specifying.
- Sentinel is available in a noise reduction "Breezebar" profile where grating is subject to high wind loadings.
- Specifications and product data sheets available on request.

Tested under cyclonic wind loads

PERSPECTIVE VIEW		SECTION & FRONT VIEW			
"A"	"B"	"C"	"D"	"E"	"F"
Load Bar Depth	Load Bar Thickness	Load Bar Pitch	Cross Bar Pitch	Blade Angle	Blade Length
20mm – 50mm	3mm	30mm – 90mm	100mm	100° - 160°	43-80mm





Special Profiles

T Bar Section

- T section provides larger support area underfoot
- Designed for access & mobility (wheel chair access)
- Serrated profile for added grip
- Compliant with AS1428.1

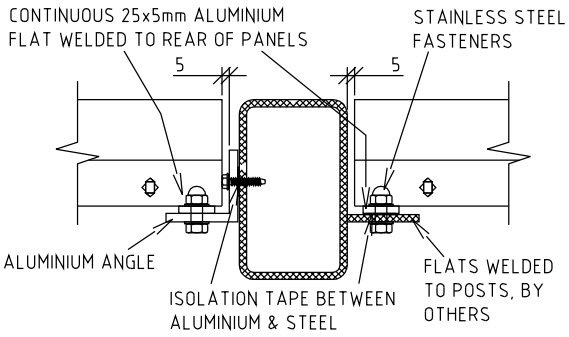
Daylight Saver Screens

- Balances transparency and solar shading
- Creates a natural light shelf, reducing the requirement for artificial lighting
- Reduced UV transfer

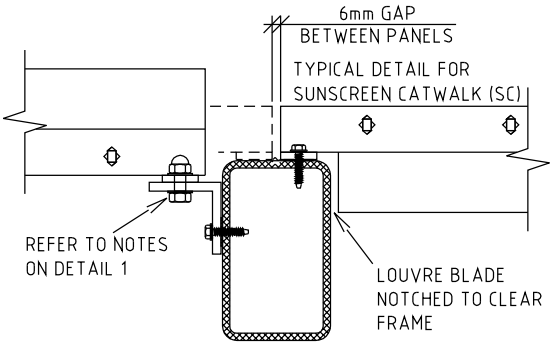
SC Profile

- Hybrid profile with both flat & angled blades
- Compliant horizontal sunscreen walkway
- Allows for substantial spans when utilized as a vertical screen

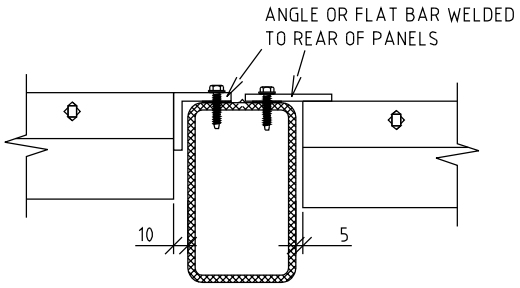
FIXING DETAILS



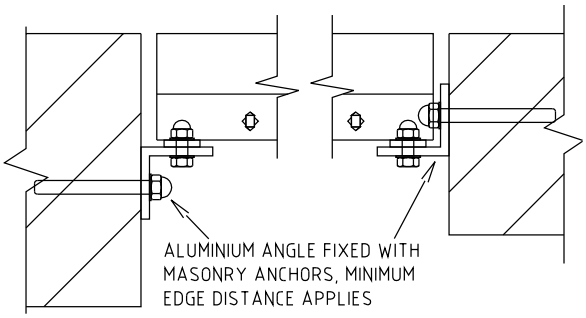
RHS REVEAL CONNECTION



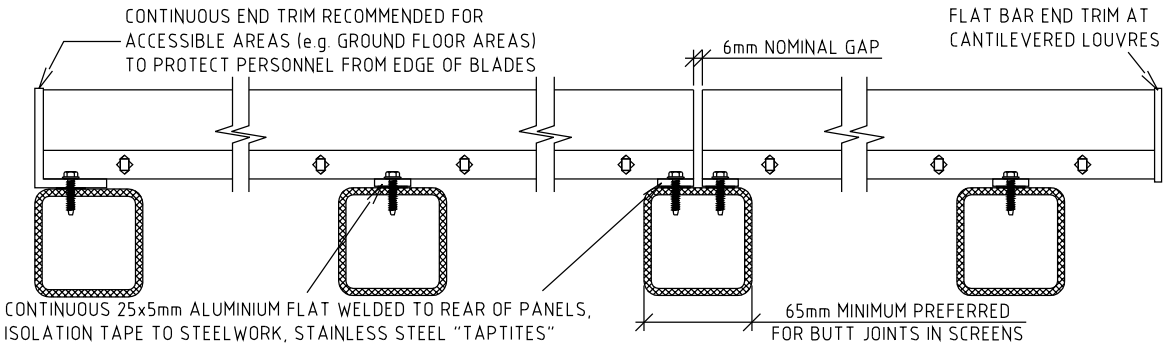
RHS ANGLE & NOTCH CONNECTION



RHS TOP FIX CONNECTION



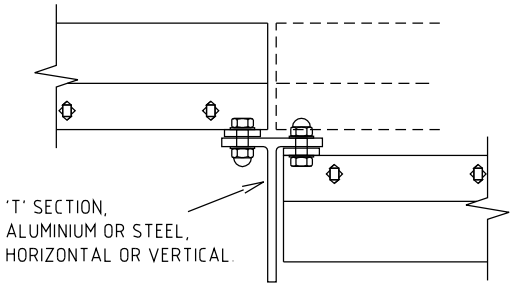
MASONRY CONNECTION



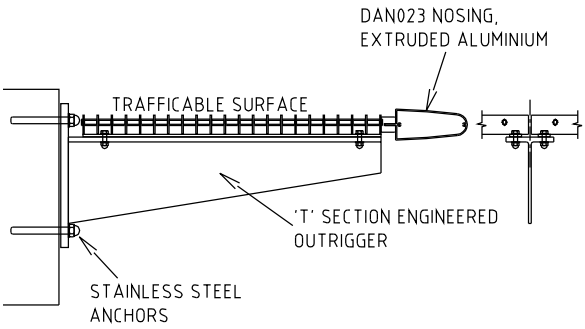
SHS CONNECTION

NOTES:

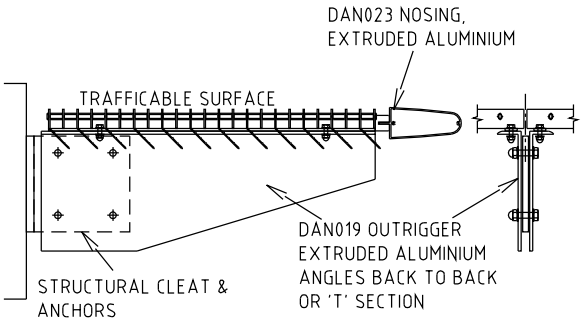
- A minimum of 4 x 6mm Ø bolts/screws required per panel up to 693 in width, 6 bolts/screws per panel up to 1023mm in width.
- Aluminium fixing flats miniumum one weld either side of the fixing hole, plus:
  - 60mm centre profile - every 2nd load bar/louvre
  - 30mm centre profile non trafficable - every 5th load bar
  - 30mm centre profile trafficable - every 2nd load bar/louvre
- Welding procedure for fixing flats minimum 20 x 5mm CFW
- Welding fabrication to comply to, AS1664 & AS1665
- Isolationg tape is recommended where contact occurs between dissimilar metals



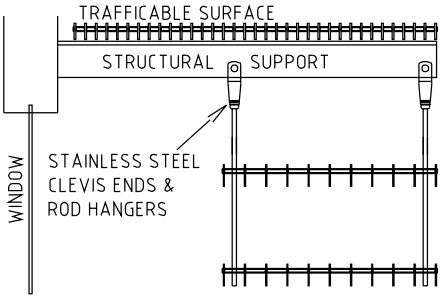
'T' SECTION CONNECTION DETAIL



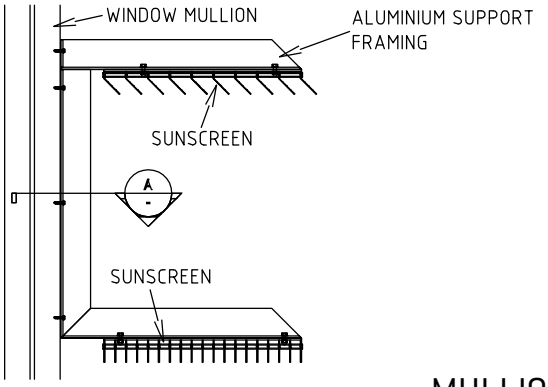
T SECTION FRAME TRAFFICABLE SYSTEM

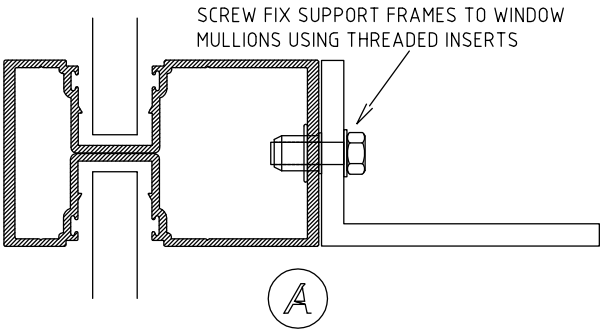


ANGLE FRAME TRAFFICABLE SYSTEM



TRAFFICABLE SYSTEM WITH
UNDERSLUNG SUSPENSION SYSTEM





MULLION FIXING SYSTEM

* Custom fixing options engineered to suit the required application.

ELIPSA™
ELLIPTICAL LOUVRES

Elipsa

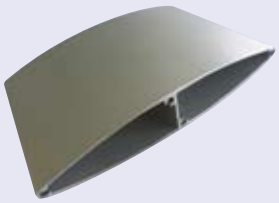
Elliptical Louvres

- Variety of blade sizes available

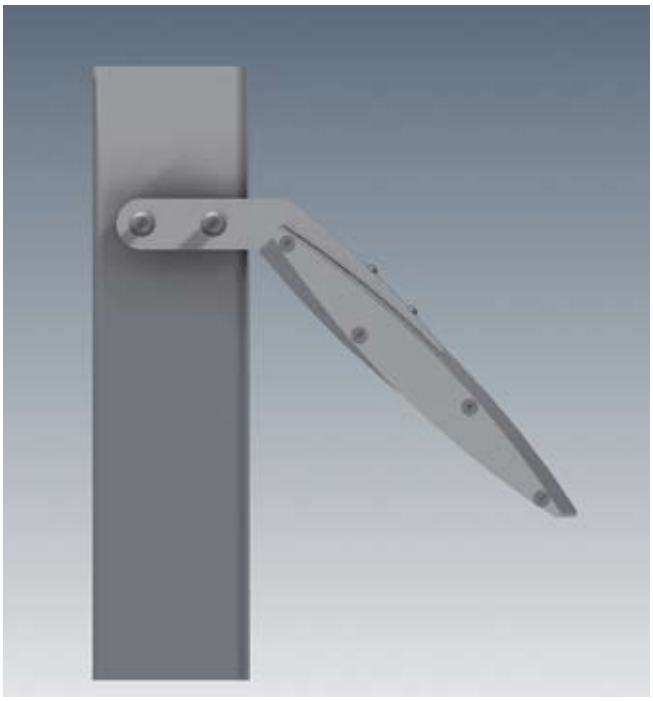
Elipsa blades are a tactile, elegant option for sunshading in any situation. Available in a variety of profile sizes, Elipsa blades can be installed vertically or horizontally, in neutral tones to blend in or in bright powder-coated finishes to make a statement.

Hi-light offer a number of pre-designed systems to allow the Elipsa blades to connect with the façade at different angles and fixing points. Likewise Hi-Light can work with the designer to achieve a particular look and texture.

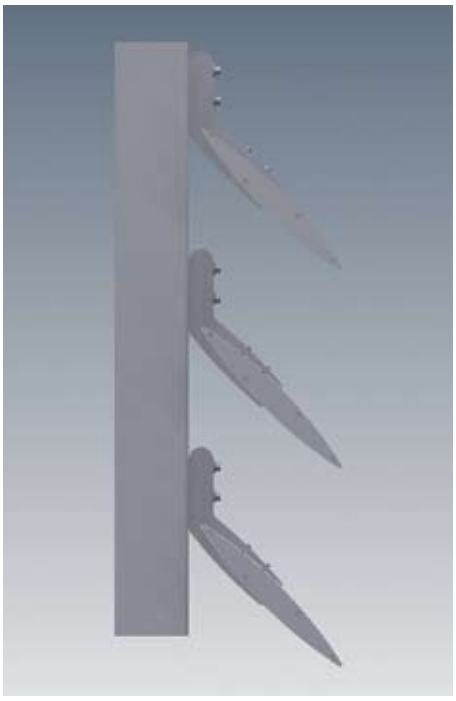
'Elipsa 150



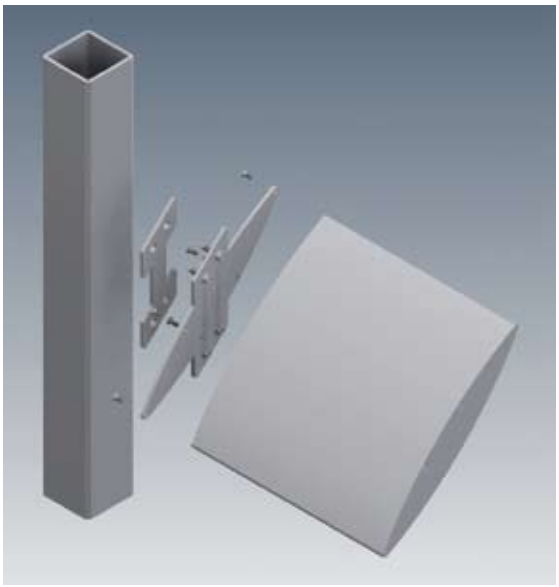
PERSPECTIVE VIEW		SECTION & FRONT VIEW	
Profile	**"A"**	**"B"**	**Section**
Elipsa 67	67mm	15mm	1 Piece
Elipsa 100	100mm	20mm	1 Piece
Elipsa 150	150mm	29mm	1 Piece
Elipsa 200	200mm	25mm	1 Piece
Elipsa 300	300mm	50mm	1 Piece
Elipsa 350	350mm	50mm	1 Piece
Elipsa 430	430mm	55mm	2 Piece
Elipsa 600	600mm	75mm	2 Piece



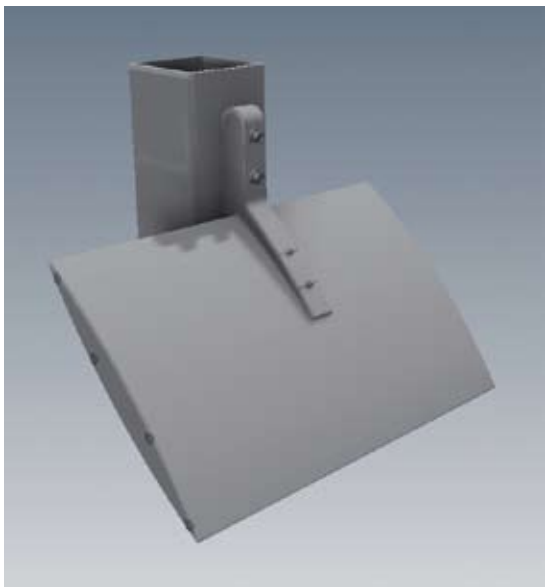
Glove Side Mount - (side view)



Glove Front Mount - (side view)



End Cap Side Mount - (birds eye view)



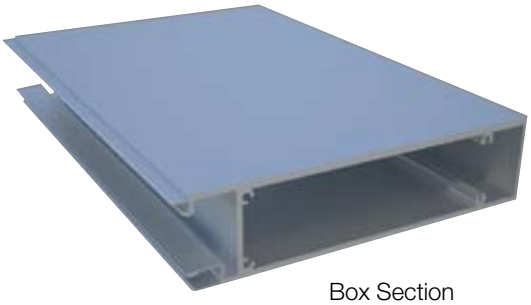
Glove Front Mount - (ibirds eye view)

LINEAR
ARCHITECTURAL FINS

Linear

Blades & Fins

- Horizontal or Vertical
- A sleek edge for horizontal grating



Box Section

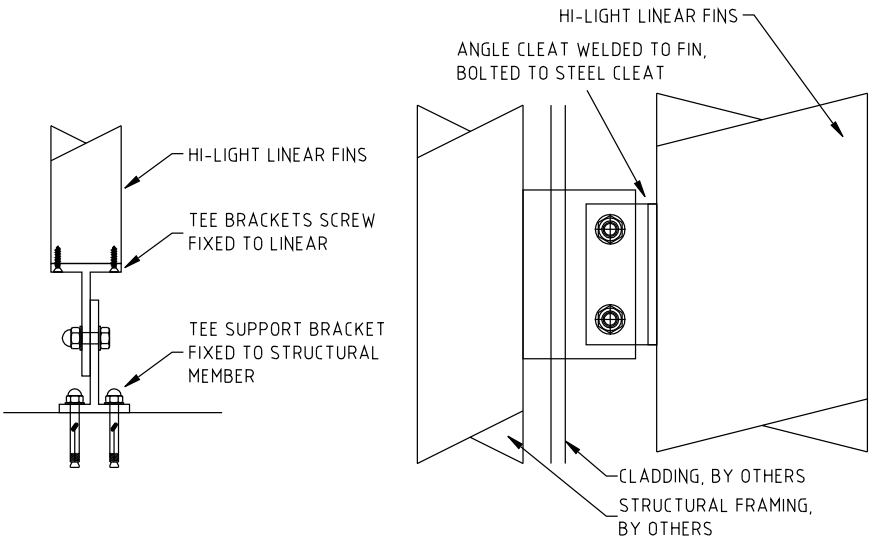
The Linear system is a 'click in' system providing vertical or horizontal fins for any application, square edged or smooth nose profiles can be customised to any requirement. Utilised vertically, Linear may provide sun protection, or simply a visual block for internal or external occupants. Linear is available in a combination of width, depth and edge profiles and is manufactured to suit the detailed requirements of the project.

Box Section

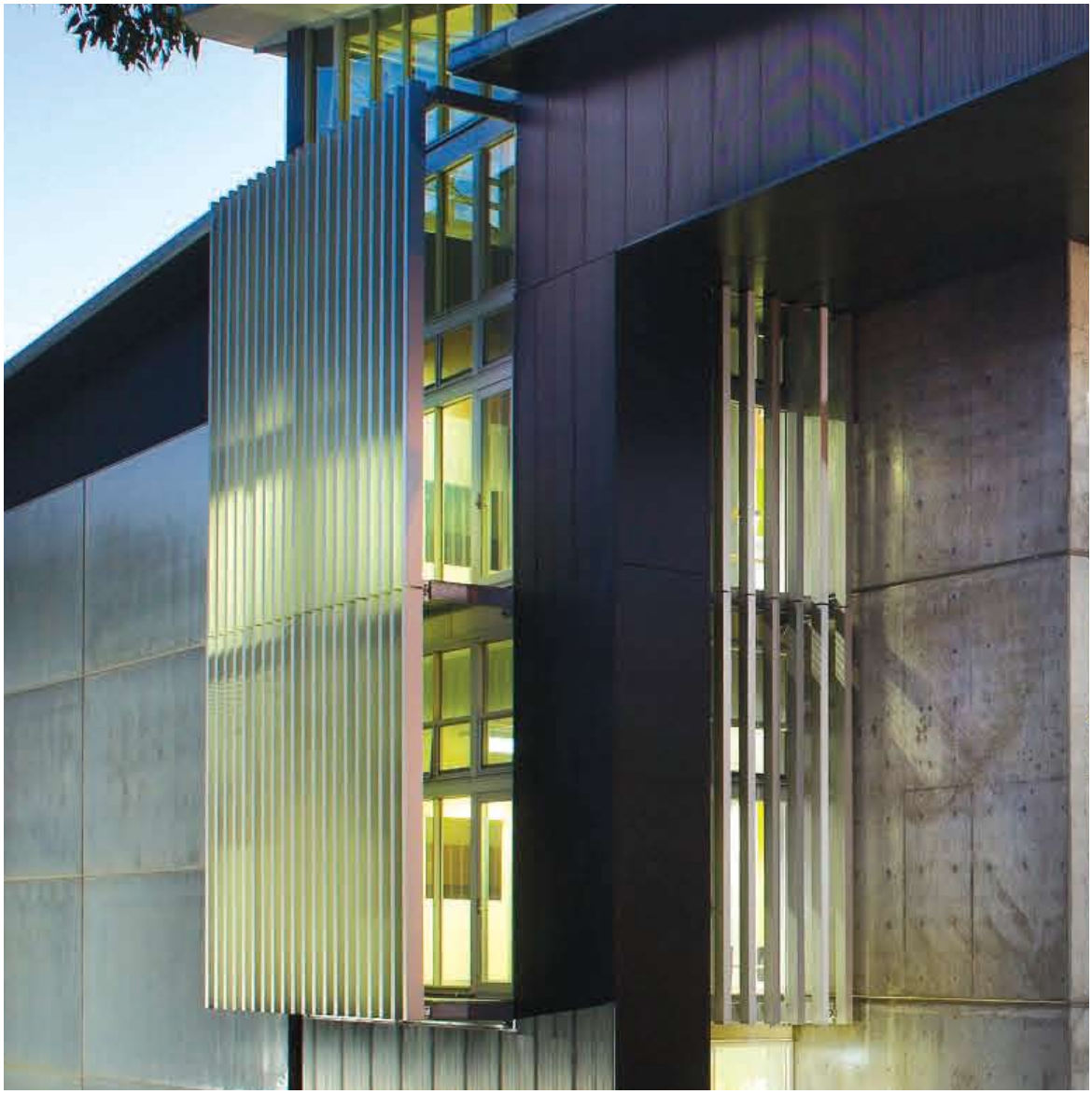
Nosing

End Cap

LINEAR FINS				
Profile	**Depth**	**Box section**	**Nosing**	**End Cap**
HLF-40-150	40mm	150mm lg	150mm lg	23mm lg
HLF-45-150	45mm	150mm lg	150mm lg	17mm lg
HLF-50-175	50mm	175mm lg	300mm lg	25mm lg
HLF-75-200	75mm	200mm lg	300mm lg	25mm lg



TYPICAL LINEAR FIN CONNECTION DETAILS



INNOVATION


Platforms
Stairs to platforms
Bus
Lifts to platform
Taxi
Bus Route

Breezebar Noise Reduction Profiles

Hi-light recognises the concern of many designers and building owners surrounding the potential for noise created by high speed airflow passing through a sunscreen or louvre profile, particularly in highly populated residential or commercial areas. Incorrect installation and poor design choices can result in a persistent hum or whistle effect, which can be difficult to overcome once installation is complete.

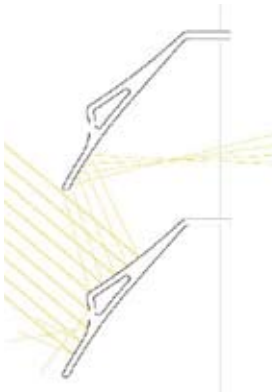
In response Hi-light Industries developed a patent protected solution to reduce the potential for Aeolian tones, created by wind velocity passing through the sunscreen.

Specifying Hi-light Breezebars can reduce the tone volume, created by aerodynamic forces by up to 50db.
Hi-light conducted wind tunnel testing, the results of which were analysed by Vipac Engineers and Scientists.

- For 60km/hr winds, a traditional grating profile produces a non-typical variation in sound, peaking at 90db at approx. 3800Hz

Throughout the testing the Hi-light Breezebar profiles produced a typical sound spectrum predominantly below 50db, showing no significant variation or peaks.

Dayight Saving Screen



Sun Angle 400

Daylight Saving screens

Traditional louvre and grating profiles provide solar shading benefits to the building, reducing the solar heat gain through the building envelope.

However, the optimal façade provides both shading characteristics and facilitates an increase in the natural light entering the building; thus reducing the requirement for both manual cooling and artificial lighting; significantly reducing the cost of running the building and the impact on the environment.

When designing the NAB Building for Melbourne's docklands precinct, Architect Bligh Voller Neild wanted to provide the occupants with the maximum amount of natural daylight to work in, acknowledging that the ideal work environment was bathed in natural light. The challenge was to protect occupants from the glare and heat of the sun, while ensuring they didn't feel as though they were trapped in a box.

The solution was to design louvre blades that were angled to protect the building envelope from heat and glare, while capturing the natural daylight. The louvres and angles were designed to capture the sun rays and bounce them off the lower louvre to the higher blade, then penetrating deep into the internal space. Occupants at the perimeter of the building were protected from excessive brightness, while occupants closer to the centre bathed in more natural light than a traditional sun shading system would allow.

The final, yet equally as important, element considered was the view from within. It was essential that the occupants could appreciate the view of the water and activity from their offices. The open spaces between the louvre blades, in conjunction with the distance the louvres were installed from the building face ensured they provided light airy protection, rather than the appearance of a security blanket.

< Coolaroo Station, utilising Breezebar

Hi-LIGHT INDUSTRIES PTY LTD
A valmont COMPANY

A customised fixing system connecting Linear blades to building facade.
An example of Hi-Lights engineering & design flexibility

LOCKER
A valmont COMPANY

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