

Enlisting the sunlight

Our extreme climate has put Australia at the forefront of sun-blocking techniques for over 50 years.

The precision of louvre and venetian blinds as they rise, tilt and close makes for perfect management of sunlight, aligning the position of the slats to the angle of the sun to achieve the maximum natural light.

However, with energy efficiency and sustainability high priorities today, the goal is no longer to block the sunlight but to align with the natural elements in order to control it. The latest phase in this evolution is the Horiso Climate Ready range of systems which herald sustainability as a design feature. As a result, Australian commercial property has entered a new era in which sustainability and design meet.

FOLLOW THE SUN

Tracking and calculating the angle of sunlight in combination with new shading-device technologies has significantly reduced the energy footprint of commercial buildings. By integrating intelligent-control of the facade's louvres and sunshades into the building-management system, microprocessors ensure the shades and louvres adjust according to the angle of the sun.

A building's location and characteristics are overlaid with the architect's drawings and satellite data, factoring in the Sun's Angle of Incidence (SAI), and streamed continuously to each individual blind, sunshade and venetian.

This process then interacts with the air conditioning and lighting systems to achieve maximum energy efficiency and optimal light around the clock.

"Not only is the look and style of the building enhanced, with blinds and shades as a contemporary architectural feature, the comfort of the occupants is enriched, no matter the climate, with maximum light and reduced all-round energy consumption," says Bruno Seguin, General Manager of Horiso.

The Horiso Dynamic Facade Controller uses BACnet (Building Automation and Control networking protocol) which ensures easy integration with all other building management system. For the first time every facade, level and angle in a building – north, east, south and west – responds to different aspects of the sun and clouds every minute of the day.

The systems can be combined and remotely controlled and monitored from any location. With the right shading device, up to a 93 per cent reduction in solar transmission and a cooling cost reduction of up to 69 per cent are possible.

SPECIAL ALLOY

The external venetian blinds and louvres are typically constructed of aluminium and marine grade stainless steel. Horiso uses a highly-elastic special alloy which is bend-proof, scratch-proof and shock-proof. In winter, this also creates the perfect barrier to stop the cold entering the building, maintaining a comfortable temperature and saving on heating costs. Horiso has conducted wind-tunnel tests of the blinds and louvres with wind speeds of up to 77 km/h, and has tested other extreme weather conditions. Horiso's unique range of control systems and distinctive design perspective are featured in leading commercial developments including:

■ 1 Bligh Street, Sydney

The first double-skin façade building in Sydney

■ Darling Walk – Darling Harbour, Sydney

Set to deliver an international excellence benchmark in sustainability

■ The Bond – Hickson Road, Sydney

Australia's first five-star green building

■ Roche Products Building – Dee Why

External sun-shading created continuous but distinct lines wrapping around the building, interconnecting with suspended sunscreen elements

■ ANZ Building – Docklands Melbourne

The largest, greenest commercial office building in Australia

■ Deakin University – Geelong

Sustainable development within an existing heritage building

■ New Zealand Insurance Building – Auckland

Rated 5 star Green Star on both design and interior fit out

■ Christchurch Civic Centre – Christchurch

New Zealand's greenest building

■ Ports of Brisbane

Rated 5 Star Green Star Office Design for the first commercial building in Port Central

More info: www.horiso.com ■

Horiso's sunshades utilise intuitive software for maximum efficiency.

Each blind, sunshade and venetian changes with variations – in sunlight.