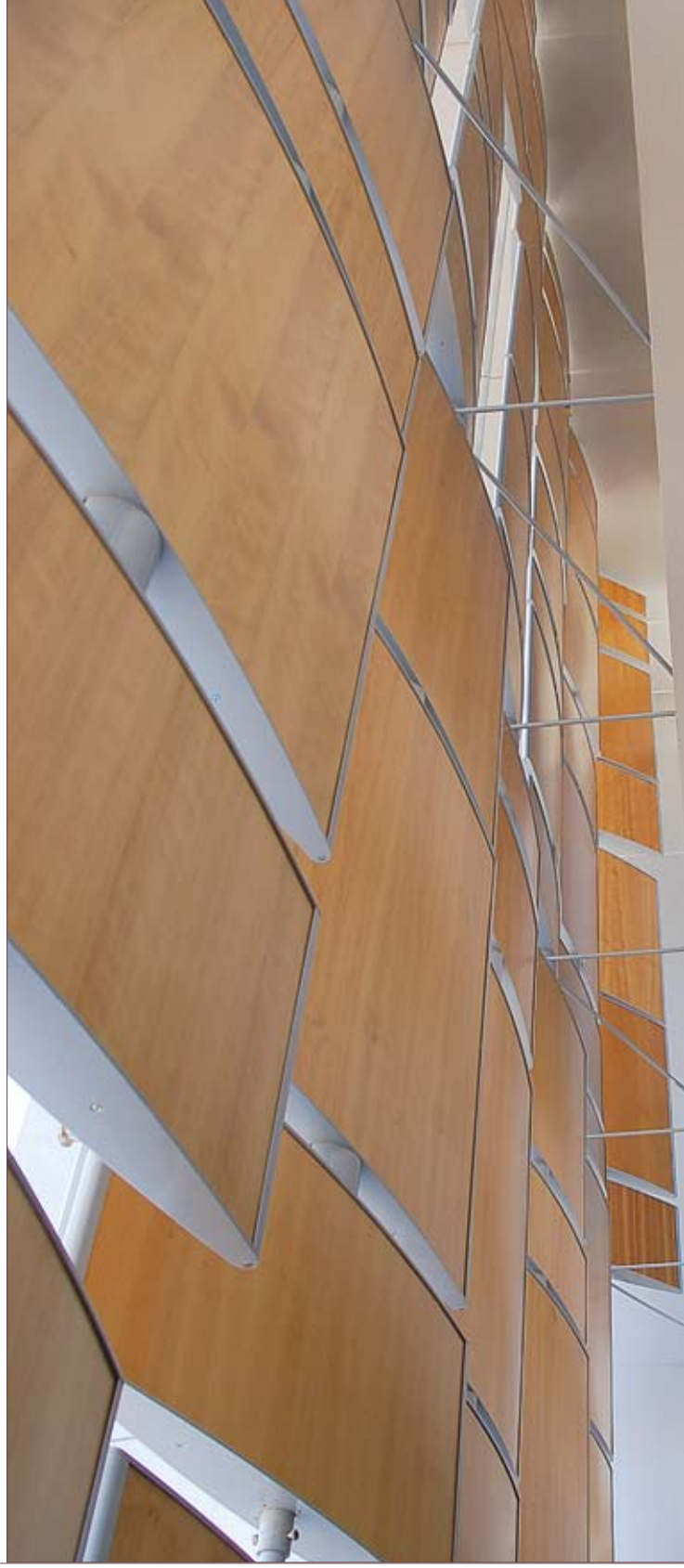


Rack Arm Systems and Custom Louvres

climate ready

horiso®

Blade Profiles

50mm Flexible Aluminium

75mm Extruded Aluminium

80mm Rolled Edge Aluminium

88mm Extruded Aluminium

145mm Extruded Aluminium

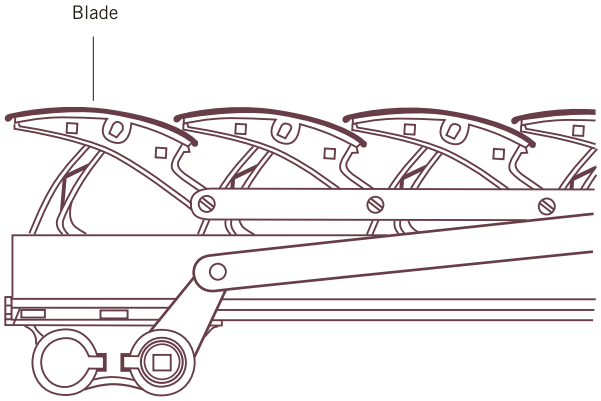
Horiso® Rack Arm Louvre System

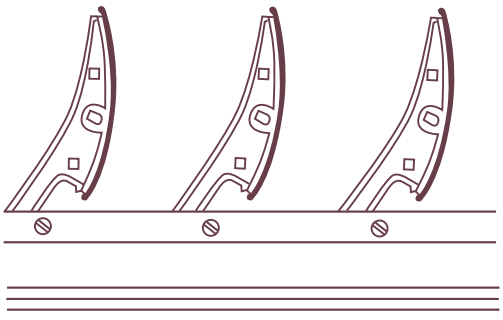
Solar control solutions for skylights can pose a number of challenges, including unusual glazing surfaces, precise light control and limited access.

The Horiso Rack Arm Louvre system offers a range of features solving these challenges plus providing effective solar and heat gain control.

The Horiso Rack Arm Louvre system consists of a series of support arms onto which the blades are mounted. The support arm also contains the control mechanism for tilting the blades.

The Horiso Rack Arm Louvre is engineered for horizontal and vertical application as well as inclined shaped surfaces. The system is suitable for internal or external use and can be fixed, manually operated or fully automated.





Features

- The Horiso Rack Arm Louvre system is flexible in application and can be used both internally and externally at any orientation, slope, angle and any glazing shape.
- The Horiso Rack Arm Louvre system is available with a variety of different blades, including flexible, rolled-edge and extruded aluminium blades.
- Interlocking louvres are available with brushes and perimeter baffles, providing near blackout, or adjusted to allow day-lighting as needed.
- Fully motorised and advanced control options available include the Dynamic Facade Controller sun tracking control system.

Benefits

- Highly versatile system - suitable for all types of glazing including curved surfaces.
- Ideal for irregular glazing shapes such as trapezoids and circles as well as angled, pitched applications.
- Can withstand strong winds and moderate snow and ice loads.
- The system provides precise light control, allowing 110 degrees of rotational control from blackout to fully open. This level of light control is perfect for buildings such as museums and galleries which often require specific light conditions.
- Horiso Rack Arm Louvre systems have been designed and built to provide years of reliable service with minimal maintenance. A five year warranty applies to all components, including operating mechanisms and controls.

Horiso® Custom Louvres

Horiso Custom Louvres deliver outstanding functionality by deflecting and controlling thermal gain from incident sun. They integrate light control into the building envelope and enhance indoor comfort. By shading the building facade, louvres reduce cooling loads while maintaining external vision and maximising daylight entry.

A well designed louvre configuration shades against low or high sun angles, provides privacy, and also creates a distinctive aesthetic statement. The facade orientation in relation to the sun determines the optimal design consideration for a building.

Horiso Custom Louvres can incorporate three basic elements:

1. Louvres to provide shading, incorporating fin and end caps.
2. An operating strip that adjusts louvre orientation on operable louvres.
3. Brackets and frame that fix the system to the facade.

Louvres fixed within a glass roof

Louvres fixed to the building facade

Features

- Horiso Custom Louvres can project horizontally out from the glazing when mounted in a panel configuration.
- Horiso Custom Louvre and mounting systems are engineered to withstand loads from wind and snow/ice and can be designed for easy removal when required.
- Single piece extruded louvres can range from 4" (100mm) to 24" (600mm) tip to tip.
- Fabricated louvres can be made to suit nearly any size requirement and can be perforated to modify their performance.
- Extruded louvres are more durable and come in a range of shapes and profiles.
- Horiso Custom Louvres are typically constructed out of aluminium but other options are available including glass and wood.
- Optional Dynamic Facade Controller software for modelling the progression of sun angles can ensure optimal configuration and performance of the louvre system.

Benefits

- Control of natural light and effective deflection of heat gain and glare into buildings.
- Metal louvres usually have an anodised aluminium finish to ensure long product life and minimal maintenance.
- All finishes including polyester coil coating and Fluor Polymer painting are resistant to sun or weather damage, thus requiring minimal maintenance and a prolonged life span.
- Larger fins allow greater outward visibility whilst smaller fin sizes allow for more precise solar control.
- Louvre shapes, composition and finish can create specific day-lighting effects as well as establishing different aesthetic requirements.
- Larger fins are more robust systems, thus withstanding greater wind and snow loads.
- A five year warranty applies to all components, including operating mechanisms and controls.

Horiso® Speciality Wood Louvres

Modern solar control systems need to be designed to meet the demanding expectations of today's sustainable architecture. The need to integrate systems into the building envelope requires production of specifically engineered and custom solutions.

By changing the characteristics of the materials and creating new profiles and custom shades, Horiso is able to produce systems to meet the building's aesthetic and performance requirements.

Horiso in conjunction with architects and facade engineers have designed many wood louvre systems for a wide range of applications. Each design is created to suit the project's specific set of requirements.

Biodesign Institute AT ASU, Phase 2

Features

- A wide and diverse selection of louvre profiles and sizes, each designed specifically for the project.
- Length limits for each louvre vary by material but generally are constrained by the need to prevent deflection and twisting of the louvre.
- A variety of customised frame and mounting systems with fixed, operable and automated options.
- Louvres can be manufactured from Western Red Cedar, Iroko or other sustainable hardwoods, with a natural patina finish that changes organically over time.
- Other composite constructions of metal and wood laminates can also deliver a durable and attractive result.

Benefits

- Control of natural light and effective deflection of heat gain and glare into buildings.
- All finishes including polyester powder coating and Fluor Polymer painting are resistant to sun or weather damage, thus requiring minimal maintenance and a prolonged life-span.
- Louvre shapes, composition and finish can create specific day-lighting effects as well as establishing different aesthetic requirements.
- Larger fins allow greater outward visibility whilst smaller fin sizes allow for more precise solar control.
- Larger fin widths use more robust systems, thus withstanding greater wind and snow loads.
- A five year warranty applies to all components, including operating mechanisms and controls.

Additional Benefits

- Creates a definitive architectural statement.
- Adds an internal design feature.

Coatings and Finishes

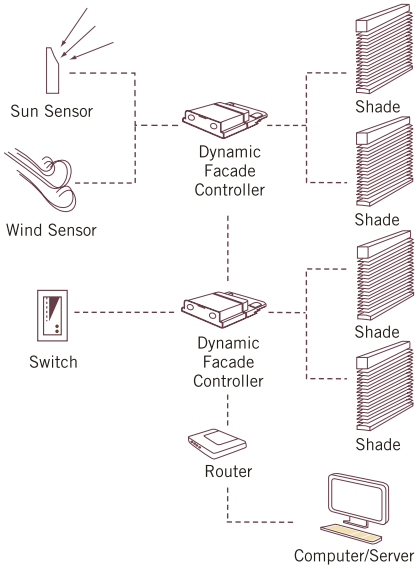
Not only are Horiso Custom Louvres and Rack Arm Systems expertly engineered and quality built, they also come in a range of hard wearing finishes and colour choices to suit any environment or design.

Horiso louvres are offered in a wide variety of Fluor Polymer painted coatings in a nearly unlimited range of customised polyester powder coated (PPC) designs, as well as in anodised aluminium.

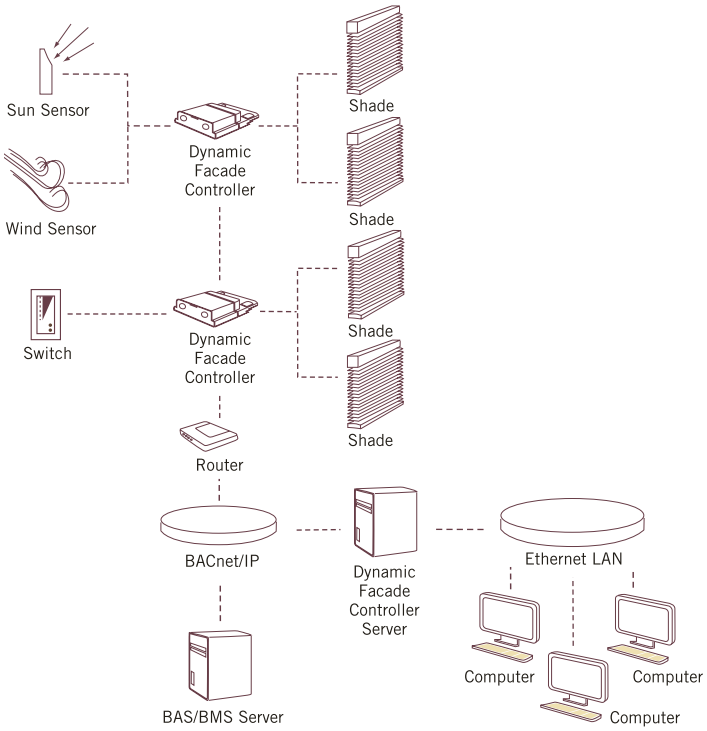
See chart opposite for a comparison. Each of these finishes protect underlying louvre materials from the environmental stresses of sun, temperature and weather, as well as contributing significantly to the louvres' appearance and performance.

Finishes	Benefits
Anodised Aluminium	
◗ A process that converts the surface of an aluminium component to aluminium oxide.	◗ Weather/UV resistant ◗ Uniform coating that will not peel or chalk ◗ Scratch resistant coating ◗ Easier to recycle.
Fluor Polymer Paint	
◗ Polyvinylidene fluoride (PVDF) resin and colour pigment mixed with a solvent to form a liquid paint. Solvent evaporates to leave a dry surface coating.	◗ Chemically inert resin is extremely durable ◗ Very good UV resistance ◗ Many colour choices ◗ Can be metallised with aluminium/mica flakes.
Polyester Powder Coating	
◗ Applied as a powder with a hardening agent to bond with the object.	◗ Unlimited range of customised designs ◗ Emit low/no VOC's ◗ Low energy, lower waste coating process ◗ New PPC finishes such as Interpon D2000 are highly durable and colourfast ◗ New PPC finishes have mechanical and UV properties equivalent to Fluor Polymer paints.

Stand-alone control



Integrated control



Dynamic Facade Control System

Integrated control solutions for automated building systems achieve new levels of building energy efficiency.

Unique building design calls for unique control solutions. Individual project requirements are established and addressed in the controller programming and commissioning phases. Each controller is programmed with predetermined parameters allowing customised functionality for each building system. This enables each controller to perform effectively as a component of the overall building system.

The Dynamic Facade Controller integrates all operable building envelope systems into a single distributive network. This unique network approach allows each controller to perform individual tasks while cooperating with other building envelope systems.

The Dynamic Facade Controller is a two motor controller designed specifically for the operation of motorised shading systems. In addition to controlling two motors, each controller is capable of accepting six dry contact inputs. Programmable layers allow for the addition of sensors and A/V system integration. The controller operates stand-alone or networked using BACnet/MSTP over RS-485.

The Dynamic Facade Controller manages internal light and glare by responding actively to varying environmental conditions via signals or inputs from devices such as sun and wind sensors, switches, remotes, timers or a combination of all five. The system is compatible with all shading systems featured in this brochure.

Overall, the Dynamic Facade Control System maximises indoor environmental quality and reduces energy consumption, creating comfortable, productive and sustainable built environments.

Programmable layers include:

- The capability for each shading device to evaluate how its performance contributes to a specific lighting condition.
- Sun tracking and scheduling capabilities for time of day, week and/or year.
- Glare and heat gain control.
- View displays the entire floor plan of the system, including sensor performance and the status of each shading device.
- Provides access to system logs, lockout/overrides and alarms.
- Monitoring and configuration from within a standard web browser.
- Gives an individual user point-and-click control of shades in their individual area.
- Supports scene control, scheduling and tweaks.

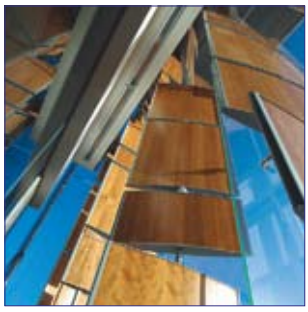
Project gallery

External Horizontal Custom Louvres - Commercial office library

Custom made Speciality Wood Louvres in double-skin facade - Biodesign Institute, ASU

Ceiling Rack Arm System - National Gallery of Australia, Canberra

Rack Arm System in an inclined glass shape - private residence



Horiso® is an Australian manufacturer and supplier of Solar Control Systems.

Horiso® manufactures internal and external solar control systems for the commercial, hospitality, institutional and residential sectors. Our products are sold and installed by an exclusive dealer network of dedicated professionals.

From environmentally friendly internal sunscreens (PVC free) to exterior venetian blinds, architectural products, sun louvres and fully automated systems, Horiso® is a specialised solutions provider for architects.

We deliver market-leading products, unmatched expertise and we will work with you to satisfy your design and engineering challenges.

horiso®

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