

SKYFOIL LOUVRE SYSTEMS

Architectural Aluminium Louvre Systems

Product Description

Designed and manufactured in New Zealand, the Altech Systems

Skyfoil Louvre System is a premium range of architectural aluminium louvre solutions developed for residential, commercial and institutional projects.

The Skyfoil range has been engineered to provide architects and designers with maximum design flexibility while delivering outstanding structural performance, durability and aesthetic appeal. Suitable for both new construction and refurbishment projects, Skyfoil systems can be customised to suit virtually any architectural style or performance requirement.

The system is available in an extensive range of airfoil, rectangular, screen, RHS, Mega and bespoke aluminium profiles, with options for fixed, sliding, operable and bi-fold louvre systems. Louvre spacing, blade angle, support systems and fixing methods can all be customised to suit project-specific requirements.

Typical applications include:

- Solar shading
- Privacy screening
- Architectural facades
- Mechanical plant screening
- Carpark screening Balcony screening
- Feature façades
- Building ventilation
- Decorative architectural elements

Every Skyfoil system is engineered specifically for each project and supported by project-specific Producer Statements (PS1) where required.

Key Features

- Designed and manufactured in New Zealand
- Fully engineered architectural aluminium louvre system
- Wide range of blade profiles including Screen, Airfoil, Rectangular, RHS and Mega Series
- Custom aluminium louvre profiles available for bespoke projects
- Fixed, operable, sliding and bi-fold configurations
- Adjustable blade spacing and blade angles
- Multiple mounting systems to suit project requirements
- Strongback or framed support systems
- Engineered to suit project-specific wind loads
- Suitable for timber, concrete and structural steel construction
- Powder coated or anodised finishes
- Stainless steel fixings throughout
- Compatible with cavity façade construction
- Suitable for coastal, geothermal and industrial environments
- Project specific Producer Statement (PS1 Design) available

Product Range

The Skyfoil range comprises a comprehensive selection of architectural aluminium louvre profiles.

Airfoil Louvres

Designed for shading, privacy, edge protection and feature façades with excellent visual appearance and aerodynamic form.

Available in a range of extruded aluminium profiles to suit varying architectural and structural requirements, including our SF120, SF180, SF200 and SF300. Refer to the section dimensions and span table for product selection.

Rectangular Louvres

Designed for shading, privacy, edge protection and feature façades with excellent visual appearance and aerodynamic form.

SF-R (Rectangular) louvres are available in a range of extruded aluminium profiles and sizes to suit varying architectural and structural requirements, including our SF50-50R up to our SF450-50R in 50mm increments. Refer to the section dimensions and maximum span table for product selection.

Ideal where a modern square-edge appearance is required.

Screen Louvres

Designed for maximum screening and opacity, for instance apartment decks and dividers. These are typically slimmer profiles, and include our SF50-18, SF75-18, SF115-18 and SFU100R

Mega and Custom Louvres

SF Mega & Custom Louvres are large format architectural louvres and completely bespoke extrusion profiles designed for landmark projects and unique architectural requirements.

They are available in a range of extruded aluminium profiles to suit varying architectural and structural requirements.

Industrial Louvres

Designed for industrial applications, such as plantroom or carpark surrounds. Available in a range of sizes including our SF126Z and SF152Z.

System Options

The Skyfoil range offers numerous configuration options including:

- Fixed Louvre Systems: Permanent architectural screening.
- Operable Louvre Systems: Adjustable blades allowing ventilation and solar control.
- Sliding Louvre Systems: Sliding architectural screening panels.
- Bi-fold Louvre Systems: Operable folding screen systems.
- Louvre Shrouds: Purpose-designed shroud systems façade applications.

Mounting & Support Options

Skyfoil systems may be supported using several engineered fixing systems including:

- Louvre mounting brackets
- Continuous aluminium end plates
- Discrete aluminium end plates
- Spigot fixing systems
- Strongback support systems
- Framed support systems
- Custom engineered support structures

Fixing methods are selected to suit project-specific structural requirements and architectural intent.

Scope of Use

The Skyfoil Louvre Series is suitable for a wide range of residential, commercial and public building applications, including:

- Apartments
- Commercial office buildings
- Educational facilities
- Retirement villages
- Healthcare facilities
- Hotels
- Civic buildings
- Industrial buildings
- Mixed-use developments
- Residential homes

Typical applications include:

- External façades
- Sun shading
- Privacy screening
- Ventilation screening
- Mechanical plant enclosures
- Balconies
- Walkways
- Carparks
- Building services screening

Skyfoil systems have been engineered for installation onto timber, structural steel and concrete substrates and are suitable for direct fixing, cavity construction and custom engineered support systems.

The system is suitable for use in all New Zealand wind zones, including Extra High wind zones, subject to project-specific engineering and design

Performance

Each Skyfoil system is individually engineered to meet the structural requirements of the specific project.

Performance characteristics include:

Structural Performance

Designed in accordance with:

- NZS 1170 Structural Design Actions
- AS/NZS 1664 Aluminium Structures

Wind pressures and support centres are determined by project-specific engineering calculations.

Durability

Manufactured using:

- Aluminium extrusions manufactured to AS/NZS 1866
- Aluminium sheet complying with AS/NZS 1734
- 6060 T5 or T6 aluminium alloys
- Stainless steel fixings (Grade 316 where required)

The system is suitable for coastal, geothermal and industrial environments when appropriate finishes and materials are specified.

Serviceability

Maximum blade spans are determined by blade profile, wind zone, support arrangement and project-specific engineering requirements.

Indicative maximum spans are provided within the Skyfoil Product Manual.

Surface Finishes

Available finishes include:

- Dulux Duratec & Duralloy powdercoating
- Anodised aluminium
- Decorative Wooden grain finish

Limitation of Use

All Skyfoil extrusions, brackets, fixings and proprietary components must be supplied by Altech Systems Ltd or its approved distributors.

Installation shall be carried out by Altech Systems approved installers in accordance with current Altech Systems technical documentation.

Any variation from standard installation details or engineering assumptions shall be supported by a project-specific Producer Statement (PS1) prepared by a suitably qualified design professional.

Where wind loads exceed standard design parameters, project-specific engineering shall be undertaken.

Statement of Building Code Compliance

All systems have been designed by a Chartered Engineer and are manufactured in accordance with the relevant sections of the New Zealand Building Code and New Zealand Standards listed below:

New Zealand Building Code

- B1 Structure
- B2 Durability
- E2 External Moisture (where applicable)
- D1 Access Routes (where applicable)
- F2 Hazardous Building Materials
- F4 Safety from Falling (where applicable)

Supporting Standards

- NZS 1170 Structural Design Actions
- AS/NZS 1664 Aluminium Structures
- AS/NZS 1866 Aluminium Extrusions
- AS/NZS 1734 Aluminium Sheet
- AS 3715 Powder Coatings
- WGANZ Anodising Specifications
- Aluminium Design Manual

Warranty

Altech Systems offers the following warranties for Skyfoil Louvre Systems:

- 2-Year Workmanship Warranty
- 5-Year Materials Warranty (excluding surface finishes)
- Surface finish warranties provided by the coating applicator or manufacturer.

Where a premium architectural coating system such as Dulux Duratec, or an equivalent, is specified, warranties of up to 20 years for coating durability and colour retention may be available, subject to the project location, coating specification, environmental conditions, and ongoing maintenance.

Altech Systems recommends the use of Dulux Duratec or an equivalent high-performance architectural coating system to maximise long-term performance and appearance. Warranty availability is subject to the coating manufacturer's terms and maintenance requirements. For full warranty details, please refer to the Altech Systems Louvre Warranty document.

Maintenance

Regular cleaning and maintenance are essential to preserve the appearance, functionality and long-term durability of the Skyfoil® Louvre System.

Recommended maintenance includes:

- Wash powder-coated and anodised aluminium surfaces every six months in normal environments and every three months in coastal environments.
- Regularly remove dirt, salt deposits and other airborne contaminants.
- Periodically inspect fixings, brackets and moving components (where applicable) to ensure they remain secure and operate correctly.
- Repair any damage to protective coatings promptly using approved touch-up products.
- Inspect the system for signs of corrosion, impact damage or excessive wear and address any issues promptly.

Maintenance requirements may vary depending on the installation environment. Failure to carry out the recommended maintenance may reduce the performance and appearance of the product and may affect applicable warranties.

For detailed cleaning procedures, recommended maintenance frequencies, inspection requirements and guidance for powder-coated aluminium, anodised aluminium and stainless steel components, refer to the Altech Systems Care & Maintenance Guide.

In-Service History

Skyfoil Louvre Systems have been installed on commercial and residential developments throughout New Zealand for more than 30 years.

The system has been successfully used across a diverse range of projects, including apartment developments, commercial buildings, education facilities, healthcare projects and high-end residential homes.

Notable projects include:

- Woodside Apartments
- Queens Residences
- Alexandra Park
- Hamilton Jets
- Vulcan Apartments
- Union & Co Apartments