

LEVOLUX

AEROFOIL FIN SYSTEM



The Levolux Aerofoil Fin Solar Shading System makes a striking addition to any scheme and can significantly reduce solar heat gain.

- ◆ Flexible design
- ◆ Attractive aesthetics
- ◆ High performance
- ◆ Energy efficient



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Introduction

The Levolux 9000 range of Aerofoil Fins provides an extremely efficient external solar shading system that can also enhance the architectural appearance of a building. Levolux 9000 Fins are non-retractable and can be installed to provide protection to vertical, horizontal or inclined glazing.

They can be installed in a fixed position or can be adjustable manually, by motor with switch control, or automatically with a standalone control system which can be interfaced with a Building Management System (BMS).



300mm and 450mm wide Aerofoil Fins installed at Q-Park as part of the Liverpool One development.

Features and Benefits

Aesthetically pleasing – Fins are manufactured from extruded aluminium sections with aluminium end-caps, all of which can be anodised or polyester powder coated to complement the building and its surroundings.

Virtually maintenance free – Stainless steel fastenings and fixings are used, producing a virtually maintenance free and corrosion-resistant system.

Reduces energy costs – The ability to limit solar heat gain can reduce or even eliminate the need for air conditioning.

Comfortable environment – Large Aerofoil Fins allow a significant level of natural daylight into the building, whilst reducing solar heat gain.

Additionally, the wide spacing allows good outward visibility with less clutter to the sight line.

Furthermore, they fit in well with the concept of natural ventilation and can provide excellent control of the internal environment.

Flexibility – Fins can be installed on new buildings or as part of a refurbishment of an existing building.

Accessibility – In order to provide access for maintenance, Levolux 9000 Fins can be integrated into a complete façade system, incorporating walkway, handrail and latchway system.



The Folkestone Academy in Kent was fitted with 400mm and 200mm wide Aerofoil Fins.

The Range

Levolux Aerofoil Fins are available in varying widths from 100mm to 700mm as standard, other sizes can be considered, as can different shapes and materials (for example, steel, timber and glass).

Due to the flexibility of the system, it is generally possible to design solutions to meet the specific requirements of the architect and client.

Product Quality

The Levolux Aerofoil Fin Solar Shading System comprises of the highest quality components which are naturally resistant to corrosion and weathering and can be custom engineered to meet special requirements.

Aluminium systems can be provided in a wide range of finishes including mill, anodised or polyester powder coated. Steel components can be supplied in stainless steel or can be manufactured from mild steel with a galvanized and/or multi-pack paint finish.



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Support Components

Aluminium: in mill, anodised or polyester powder coated finish.

Steel: as stainless steel or mild steel to grade 316, with a galvanised and/or multi-pack paint finish.

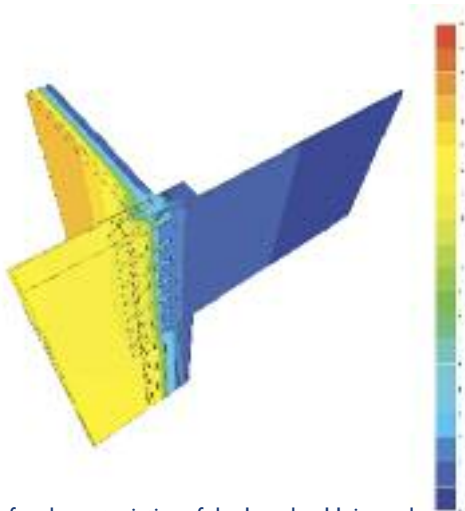
System Construction

All components are subject to rigid quality standards and are designed to produce a high performance product with an aesthetically pleasing finish.

The main components of the Levolux Aerofoil Fin Systems are:

- ◆ First fix brackets
- ◆ Fins
- ◆ Support arms
- ◆ Walkways (optional)
- ◆ Support structure
- ◆ Controls (optional)

First fix brackets, support arms and structure – can be manufactured from either steel or extruded aluminium, dependant upon each application's building needs and loadings, including a thermally broken curtain wall bracket (see below).



Heat transfer characteristics of the Levolux Universal Curtain Walling Bracket with integrated thermal break – 70% more effective than a standard bracket.

Fins – are normally manufactured as one piece extruded aluminium sections, up to a maximum width of 700mm, as standard. Multi-part fins are also available for generally larger width requirements.

Fabricated and perforated fins can be made available in any size dependent upon their location on the structure. Timber fins can also be supplied in various sizes and profiles.

A selection of the Levolux range of fins is shown on the back cover. Nevertheless other sizes and profiles can be considered for particular project requirements.



400mm wide fabricated, perforated Aerofoil Fins installed at the HQ of NAPP Pharmaceutical in Cambridge.

The method of 'fixing' the fins once again can vary greatly depending on the façade and structural requirements together with the degree of shading required.

Walkways (optional) – can be either steel (grid type) or extruded aluminium 'T' sections.

Controls (optional) – of various types are available to provide manual, motorized or fully automatic operation. Automatic controls, through a standalone control system, can be interfaced with a Building Management System (BMS).



300mm wide extruded Aerofoil Fins installed as a horizontal canopy at Lee Valley National Athletics Centre in London.

THREE-YEAR WARRANTY

All Levolux systems are manufactured from high-grade materials to exacting specifications. This enables us to provide a guarantee providing free of charge replacement parts should any system prove to be defective within three years of installation.

This guarantee is conditional on the manufacturers recommended fitting and operating instructions having been followed.



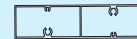
A selection of Extruded and Fabricated Fins

This represents a small selection of our standard Fins. Custom sizes, shapes and spans can be accommodated.

165 x 30 Aerofoil Fin
Typical Span 2450



200 x 50 Box
Typical Span 4300



200 x 45 Aerofoil Fin
Typical Span 3500



200 x 50 Box
Typical Span 4300



300 x 56 Aerofoil Fin
Typical Span 3800



250 x 44 Diamond Fin
Typical Span 2850



350 x 60 Aerofoil Fin
Typical Span 4200



300 x 60 Teardrop Fin
Typical Span 4000



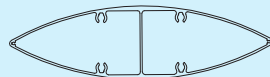
400 x 63 Aerofoil Fin
Typical Span 4400



Fabricated Fin
Typical Span 3500



400 x 110 Aerofoil Fin
Typical Span 8000



Fabricated Fin
Typical Span 4000



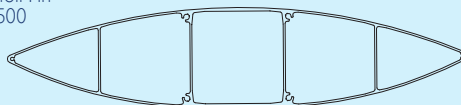
500 x 69 Aerofoil Fin
Typical Span 5000



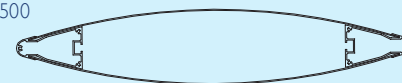
500 x 75 Box
Typical Span 5700



700 x 69 Aerofoil Fin
Typical Span 9500



Fabricated Fin
Typical Span 4500



Spans can be increased but please contact Levolux to discuss your requirements.
Typical spans are based upon 1/150 deflection with a 900N/m2 live wind loading.

Specification

Item: External Sunbreaker Fins:

External Sunbreaker Fin System to be Levolux 9000
Fins in natural anodised/polyester powder coated*
finish from the Levolux colour range.

Colour to be at.....%+ adjustable* with
handle and gearbox operation/electric operation*
with switch/fully automatic* solar control.

Levolux Fins to be.....mm in width+,
No.....+ from the Levolux standard range.

Framework and support system to suit.

To suit glazed areas.....mm wide by
.....mm high+ all in accordance with glazed
area as detailed on drawings Nos.....+

Supplied and installed by an approved Levolux
distributor.

In line with our policy of continuous product development,
Levolux reserves the right to alter specifications without
prior notice.

+Insert as applicable *Delete as applicable

Further Information

For further information on Levolux Solar Shading
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and glare, please contact:

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