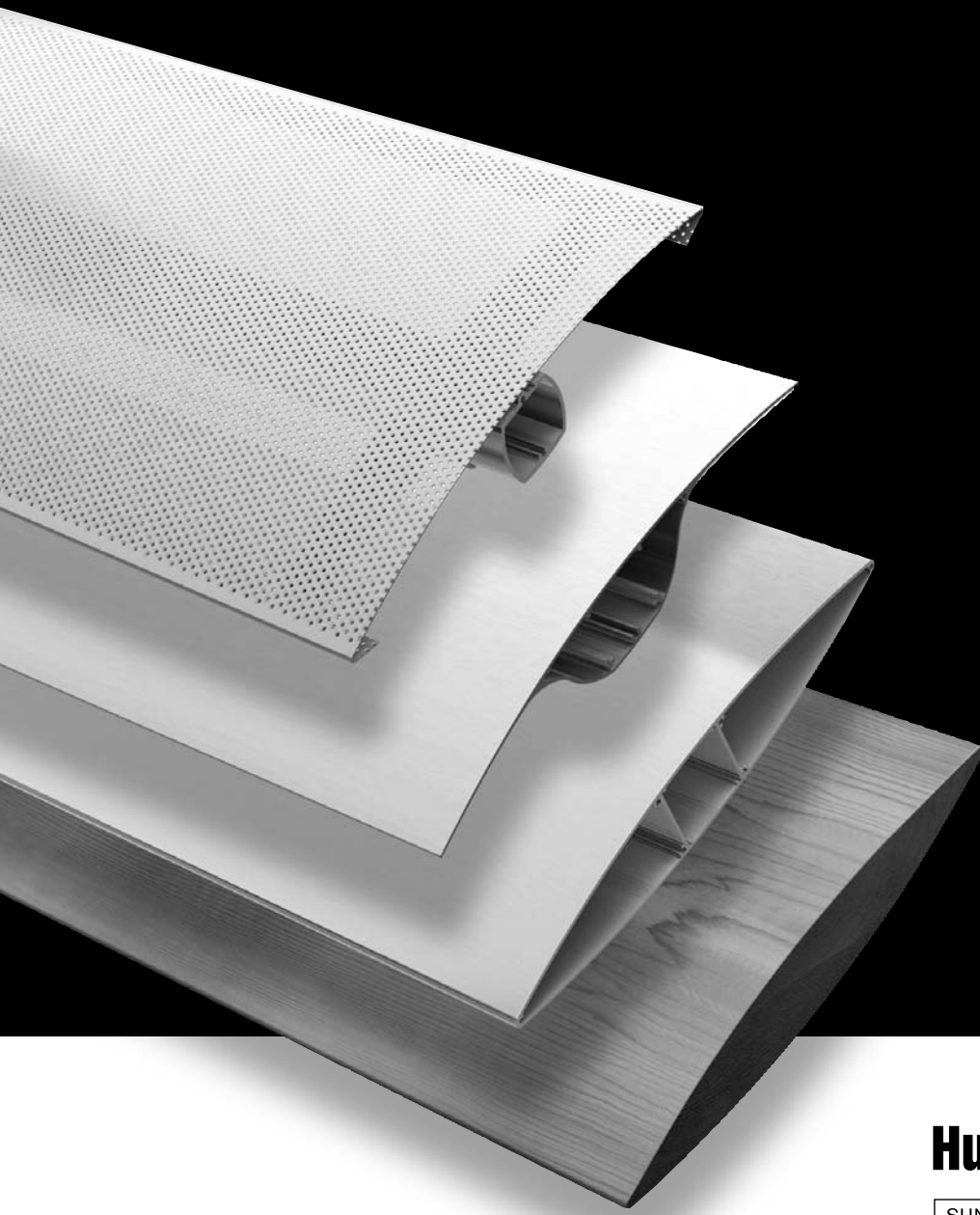


Aerofins

Hunter Douglas Aerofin Systems blend style and functionality, bringing a distinct look to a building's exterior while **providing shade and comfort** to the inside. Wing-shaped panel elements, or fins combine optimal solar effectiveness with a sleek, futuristic appearance



HunterDouglas

SUN CONTROL



Aerofins

Designs that soar

DESIGN FLEXIBILITY

The stylish appearance of the extruded fins and the broad range of sizes provide interesting possibilities and allows the optimal choice for integrating the fins in your building design. As a projected application or used along the elevation, installed as endless horizontal lines or segmented vertical lines to appear on the building. All systems allow for a fixed or an adjustable application. The fins can be supplied with an anodised finish or with a polyester powder coating in standard or customised colours.

DURABILITY

Aerofins are made from extruded aluminium profiles with optimised wall thickness. All additional components are designed and manufactured meeting the highest standards. This all results in durable, reliable and low maintenance Sun Control Systems.

EASY INSTALLATION

The adjustable Aerofin systems gives the user the option of setting the fins at any possible angle from 0 to a maximum of 120 degree at any time. With a motorised system, maximum convenience can be obtained with the optional intelligent control system, which automatically regulates the fins according to the sun path and weather conditions.

The fixed Aerofin systems mounted in a sub-structure have been designed to accommodate any angle between 0° and 180° with increments of 5 degrees. The fin angle can be set during installation. To create continuous lines some systems can be fitted with V-bracket fixture, available in 0, 30 and 45 degree inclination or a Cup-bracket fixture, available in 0, 30 and 45 degree inclination.



LIGHT, HEAT & ENERGY

In order to obtain the optimal shading performance for a building and its occupants we developed computer simulation and calculation tools. Our project support team can analyse, visualise and optimise the Sun Control System by means of our Light, Heat and Energy tool. The basic data required are the location and orientation of the building and most important of all the pre-defined requirements for this building. The local weather data will be obtained from local weather institutes.

Hunter Douglas AeroFin systems - Aerofoils, Aerowings and Aeroscreen - are optimised using identical installation components and support systems. This makes life easy; once you've worked with one of our systems, they are all easy to understand. Based on the specifications it is easy to select the AeroFin that suits and performs best for your project.

CONTENT	Page
Aerofoil	2
Aerowing	4
Aeroscreen	6
Material/Motorisation	8
Design Options	10
Light, Heat and Energy	11

Innovative Products Make Innovative Projects



HunterDouglas

Aerofoil

Hunter Douglas Aerofoils are standard available in 6 different sizes and in an adjustable or fixed configuration. The specific fin design allows for larger spans and there is a choice of support structures.

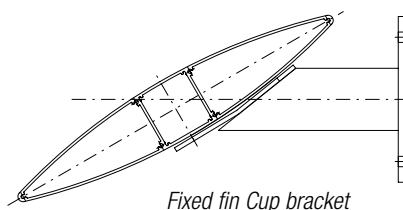
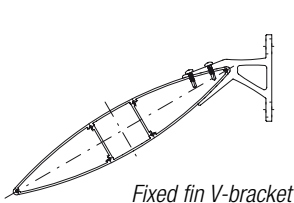
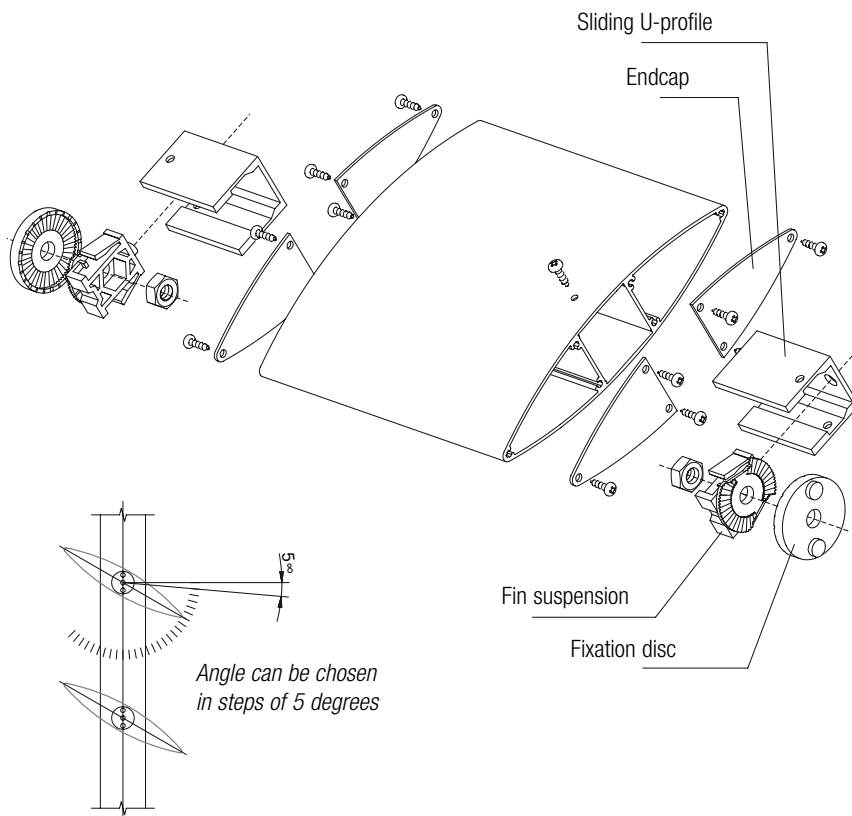
FIXED FIN ANGLE

- The fixed fin support structure has been designed to accommodate any angle between 0° and 180° with increments of 5 degrees. The fin angle can be set during installation.
- Fixed fin V-bracket, available in 0, 30 and 45 degree for the 200 - 300AF.
- Fixed fin Cup-bracket, available in 0, 30 and 45 degree for the 350 - 450AF.

INSTALLATION

For the fixed fin system each fin is 'snapped' into position by sliding the U-profile section over the fin suspension.

The fast and easy installation, requires a minimum of tools.



ADJUSTABLE FIN ANGLE

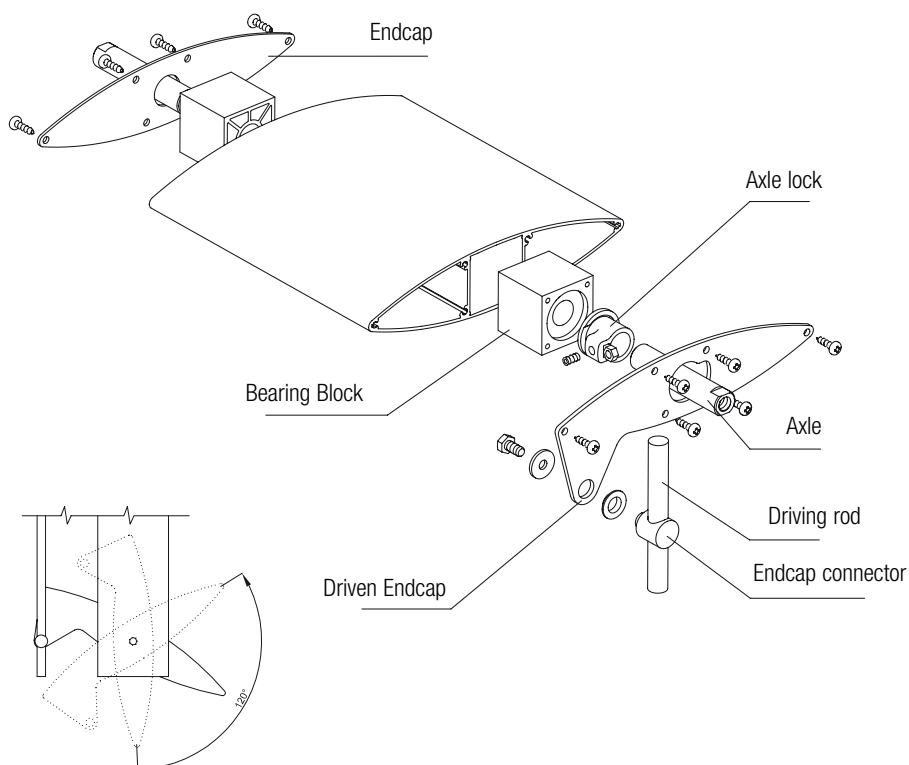
The adjustable Aerofoil system gives the user the option of setting the fins at any possible angle from 0 to a maximum of 120 degree at any time.

With this motorised system, maximum convenience can be obtained with the optional intelligent control system, which automatically regulates the fins according to the sun path. The high quality materials guarantee this system to operate with a minimum of maintenance.

INSTALLATION

For the adjustable system, two axles per fin are fitted to the frame. The fins are fixed to the axles and aligned with an axle lock. The driving rod is attached and adjusted. Finally the motor is installed and connected to the driving rod to provide the required angle of rotation of the fins.

The fast and easy installation, requires a minimum of tools.



Aerofoil

STANDARD FINNS

Standard fin sizes from 200 mm up to 450 mm width. Other sizes on request.

The Aerofoil is also available in wood with his own specific support structure.

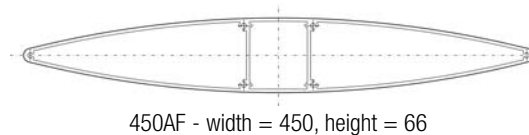
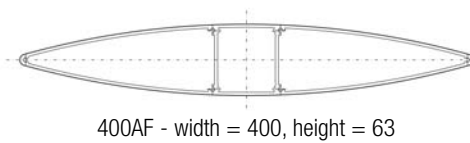
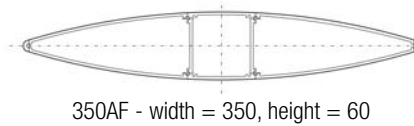
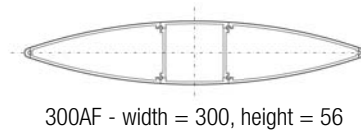
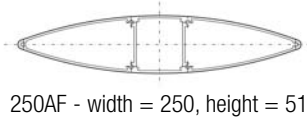
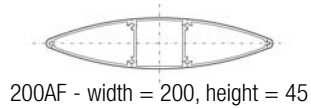
MATERIAL SPECIFICATIONS

Base Material

Aerofoil fins are aluminium extrusions with a wall thickness ≥ 1.8 mm. The fin ends are closed with endcaps made from aluminium plates 3 to 4 mm thickness. All fixation materials are stainless steel. For the support structure you can choose either aluminium or galvanised steel.

For the fixed system the fixation disc and the fin suspension are made of Nylon (PA6.6) filled with fibre glass. The sliding U-profile is extruded aluminium.

For the adjustable system the bearing block is made of Polyethylene (HDPE) with a stainless steel axle and an axle lock made of Nylon (PA6.6) filled with fibre glass. The end cap connector is made of stainless steel and for the driving rod there is a choice of aluminium or steel.



MAXIMUM SPAN

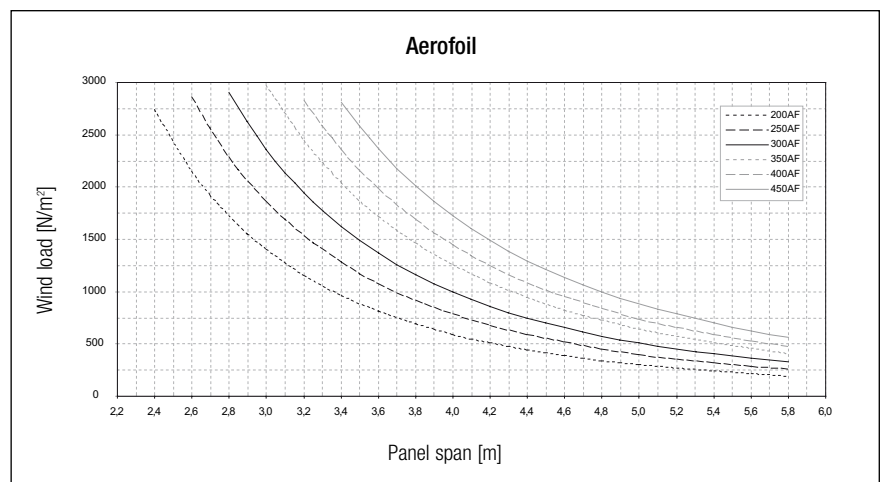
Panel Span

The panel span in relation to the wind load (pressure or suction), can be calculated from the graph.

Note: Calculating the value of the local wind load is the responsibility of the installer who must take into account the regulations of local authorities.

For corners, roof edges or special designs wind pressure/suction shall be determined with due consideration of the relevant local country's Standard Code of Building Practice.

For snowloads consult your local building regulations. For the panel spans using V-brackets or Cup-brackets, please contact the Hunter Douglas sales office.



Aerowing

Hunter Douglas Aerowings are available in 3 different sizes and in an adjustable or fixed configuration. The specific fin design allows for small and medium spans with a choice of support structures.

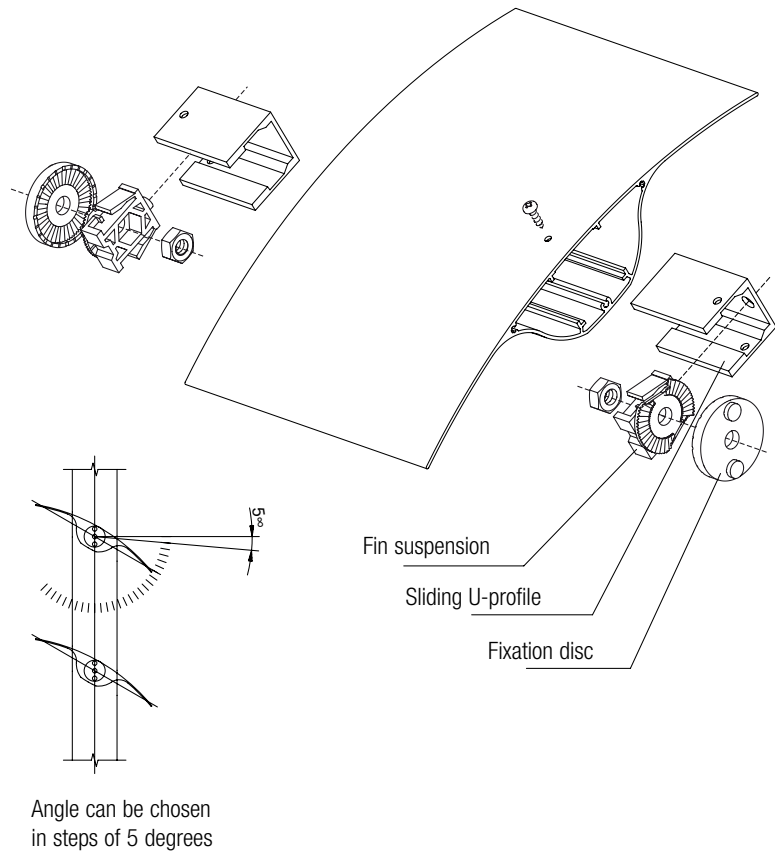
FIXED FIN ANGLE

The fixed fin support structure has been designed to accommodate any angle between 0° and 180° with increments of 5 degrees. The fin angle can be set during installation.

INSTALLATION

For the fixed fin system each fin is 'snapped' into position by sliding the U-profile section over the fin suspension.

The fast and easy installation, requires a minimum of tools.



ADJUSTABLE FIN ANGLE

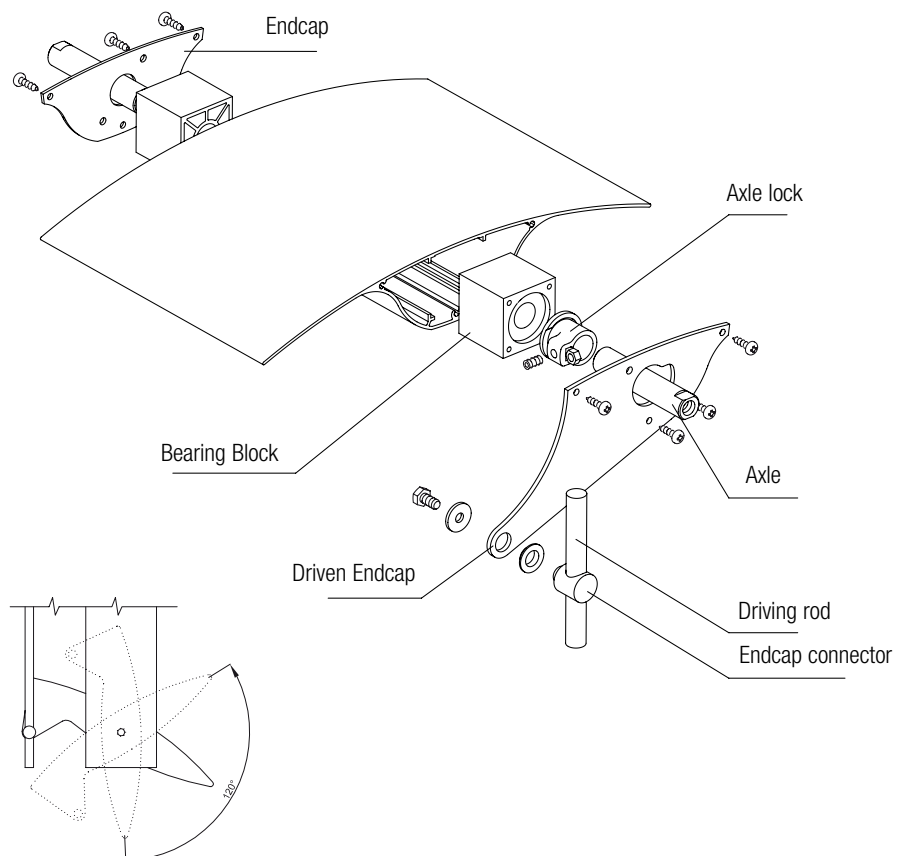
The adjustable Aerowing system gives the user the option of setting the fins at any possible angle from 0 to a maximum of 120 degree at any time.

With this motorised system, maximum convenience can be obtained with the optional intelligent control system, which automatically regulates the fins according to the sun path. The high quality materials guarantee this system to operate with a minimum of maintenance.

INSTALLATION

For the adjustable system, two axles per fin are fitted to the frame. The fins are fixed to the axles and aligned with an axle lock. The driving rod is attached and adjusted. Finally the motor is installed and connected to the driving rod to provide the required angle of rotation of the fins.

The fast and easy installation, requires a minimum of tools.



Aerowing

STANDARD FINS

Standard fin sizes from 200 mm up to 400 mm width.

MATERIAL SPECIFICATIONS

Base Material

The Aerowing fins are aluminium extrusions with a wall thickness ≥ 1.8 mm. For the adjustable system the fins are closed with endcaps made from aluminium plates of 3 to 4 mm thickness. All fixation materials are stainless steel. For the support structure you can choose either aluminium or galvanised steel.

For the fixed system the fixation disc and the fin suspension are made of Nylon (PA6.6) filled with fibre glass. The sliding U-profile is extruded aluminium. The fixed system can optionally be provided with endcaps.

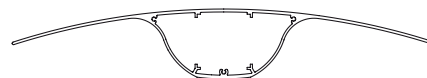
For the adjustable system the bearing block is made of Polyethylene (HDPE) with a stainless steel axle and an axle lock made of Nylon (PA6.6) filled with fibre glass. The end cap connector is made of stainless steel and for the driving rod there is a choice of aluminium or steel.



200AW - width = 200 mm, height = 50 mm



300AW - width = 300 mm, height = 52 mm



400AW - width = 400 mm, height = 66 mm

MAXIMUM SPAN

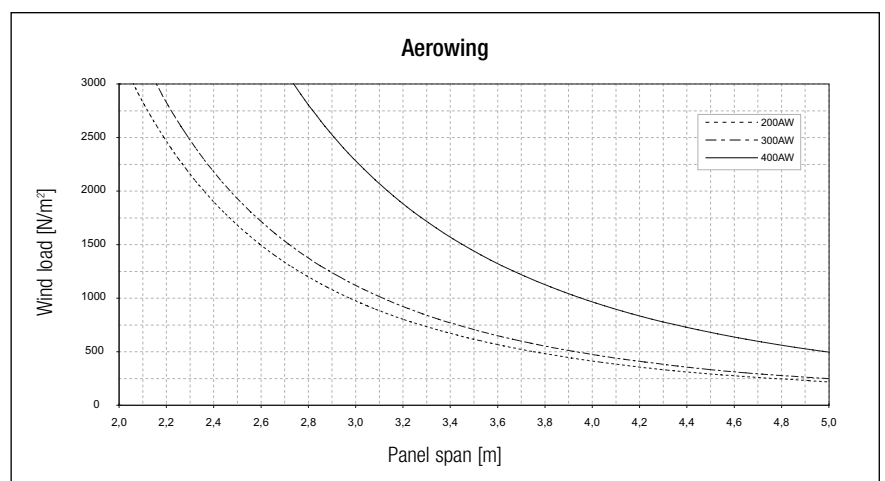
Panel Span

The panel span in relation to the wind load (pressure or suction), can be calculated from the graph.

Note: Calculating the value of the local wind load is the responsibility of the installer who must take into account the regulations of local authorities.

For corners, roof edges or special designs wind pressure/suction shall be determined with due consideration of the relevant local country's Standard Code of Building Practice.

For snowloads consult your local building regulations.



Aeroscreen

A combination of extruded components and a skin results in the Aeroscreen perforated wing-shaped fin, allowing an optimal solar control combined with light control and a better outside view.

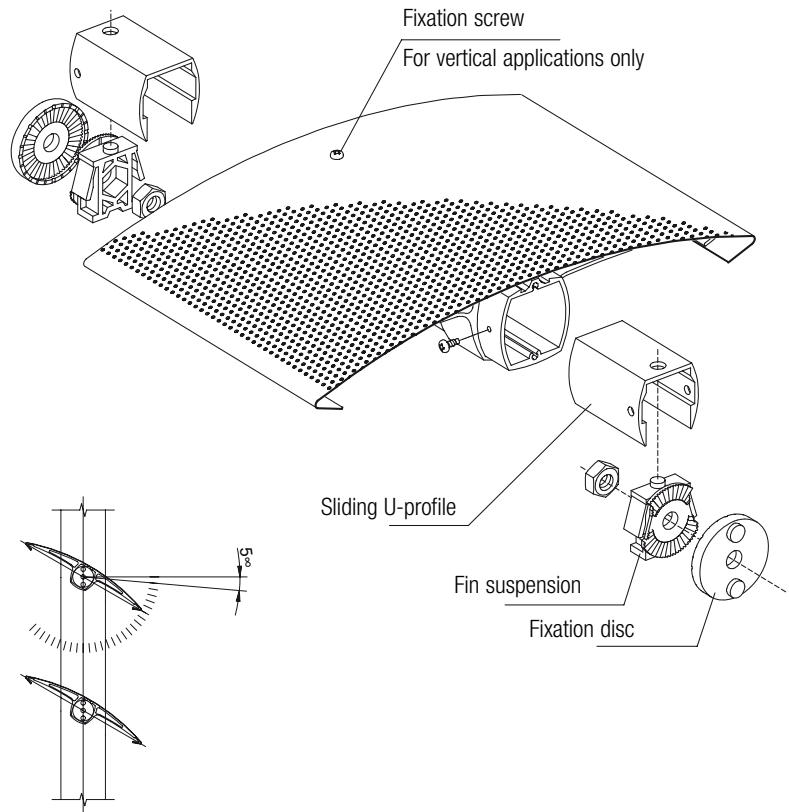
FIXED FIN ANGLE

The fixed fin support structure has been designed to accommodate any angle between 0° and 180° with increments of 5 degrees. The fin angle can be set during installation.

INSTALLATION

For the fixed fin system each fin is 'snapped' into position by sliding the U-profile section over the fin suspension.

The fast and easy installation, requires a minimum of tools.



Angle can be chosen in steps of 5 degrees

ADJUSTABLE FIN ANGLE

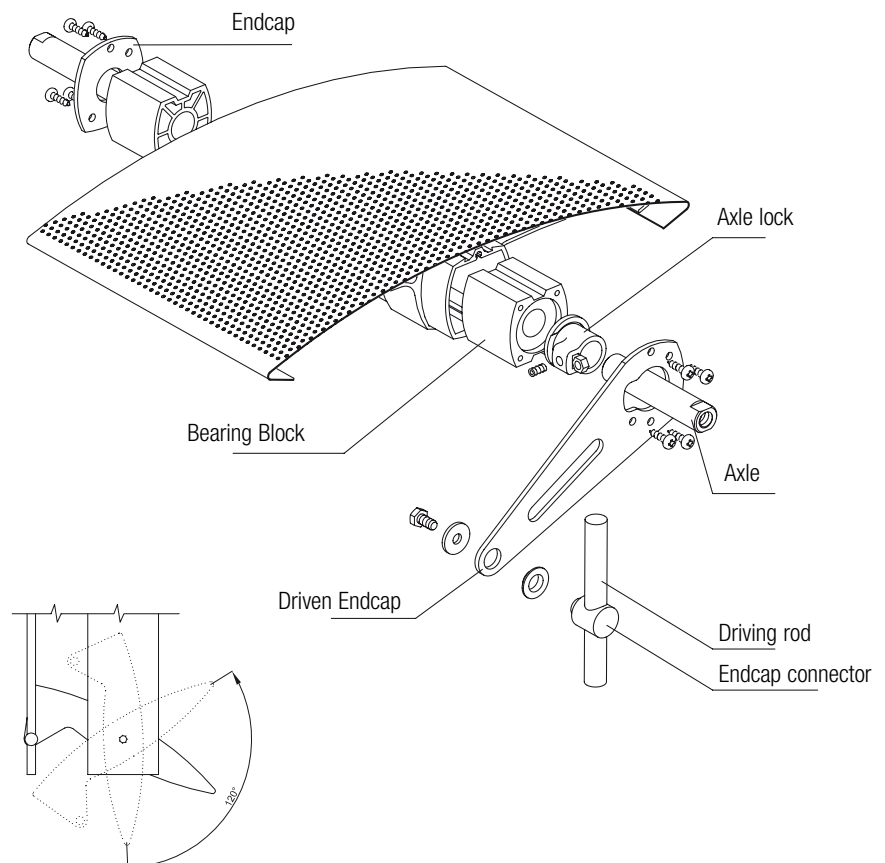
The adjustable Aeroscreen system gives the user the option of setting the fins at any possible angle from 0 to a maximum of 120 degree at any time.

With this motorised system, maximum convenience can be obtained with the optional intelligent control system, which automatically regulates the fins according to the sun path. The high quality materials guarantee this system to operate with a minimum of maintenance.

INSTALLATION

For the adjustable system, two axles per fin are fitted to the frame. The fins are fixed to the axles and aligned with an axle lock. The driving rod is attached and adjusted. Finally the motor is installed and connected to the driving rod to provide the required angle of rotation of the fins.

The fast and easy installation, requires a minimum of tools.



Aeroscreen

STANDARD FIN

The standard fin width is 300 mm.



300AS - width = 300, height = 56

MATERIAL SPECIFICATIONS

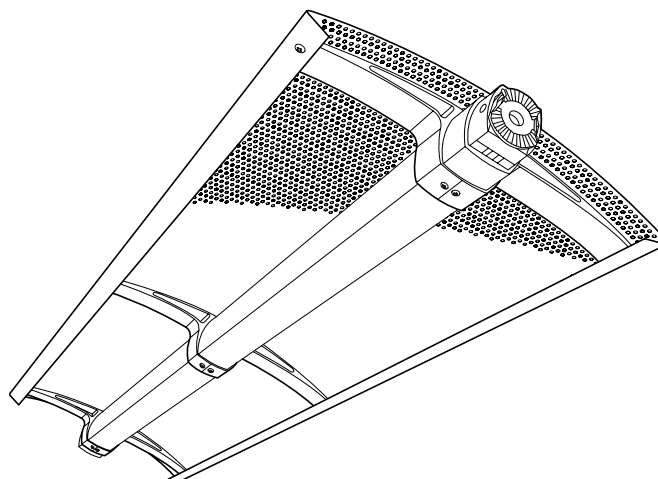
Base Material

The Aeroscreen fins consists of aluminium extrusions with a wall thickness ≥ 1.8 mm and a 1.0 mm thick perforated preformed skin. For the adjustable system the fins are closed with endcaps made from aluminium plates of 3 to 4 mm thickness. All fixation materials are stainless steel.

For the support structure you can choose either aluminium or galvanised steel.

For the fixed system the fixation disc and the fin suspension are made of Nylon (PA6.6) filled with fibre glass.

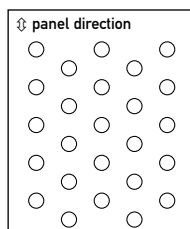
The sliding U-profile is extruded aluminium. For the adjustable system the bearing block is made of Polyethylene (HDPE) with a stainless steel axle and an axle lock made of Nylon (PA6.6) filled with fibre glass. The end cap connector is made of stainless steel and for the driving rod there is a choice of aluminium or steel.



SKIN PERFORATIONS

Perforated aluminium

Standard: $\varnothing 2.0$ mm - $\Delta 5$ mm with 11% openness. Other perforations available on request. On project base other skin material can be used.



MAXIMUM SPAN

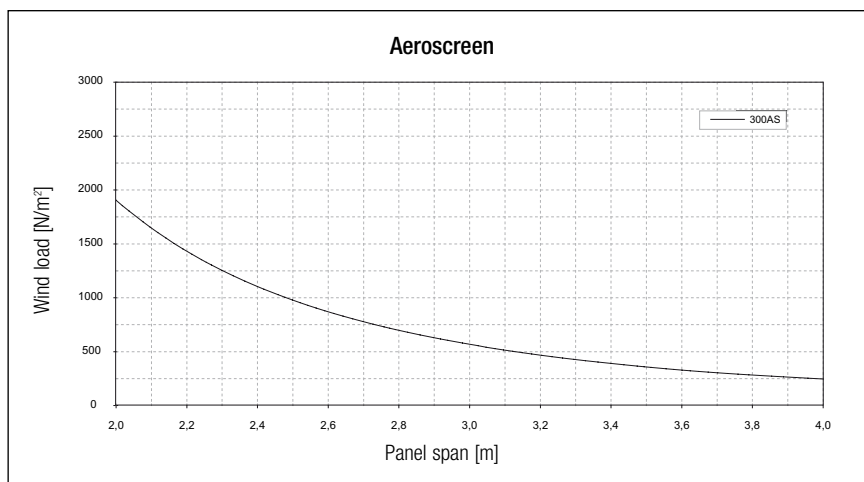
Panel Span

The panel span in relation to the wind load (pressure or suction), can be calculated from the graph.

Note: Calculating the value of the local wind load is the responsibility of the installer who must take into account the regulations of local authorities.

For corners, roof edges or special designs wind pressure/suction shall be determined with due consideration of the relevant local country's Standard Code of Building Practice.

For snowloads consult your local building regulations.



Material

SURFACE TREATMENT

The aerofins can be finished with two different surface treatments: Anodising (except aeroscreen) or Powdercoating.

THE ANODISED FINIS

All aluminium profiles are anodised according to European standard code EN 12373. Standard we use the natural anodising colour with a layer of approximately 15-20 micron. On request we can supply all kinds of different colours, surfaces and thicknesses.

THE POWDERCOATED FINIS

All aluminium profiles are coated with a polyester powder coated (PPC) with an average layer thickness of 60 micron and a gloss of 70%. Powdercoating is applied according to the Qualicoat standard. We distinguish three different colour ranges: standard RAL colours, metallic RAL colours and pearl RAL colours. On request other colour standards like NCS and Pantone are possible. Furthermore we can coat our profiles with the new Softcoat systems for a soft structure feeling, high scratch resistance and a smooth gloss of 4%.

CUSTOM MADE LOUVRES

Although we have a wide variety of systems and fins we are always looking for new materials, systems and challenging demands from architects and designers. Next to our standard range of aluminium profiles we also use wood, glass, stretch metal, perforated sheets, copper, zinc, woven meshes etc. as basic materials for our solar control systems. Our well trained staff is perfectly equipped to help you through the whole process of designing, application, installing and maintenance of these custom-made special solutions.

For additional information contact the Hunter Douglas sales office.

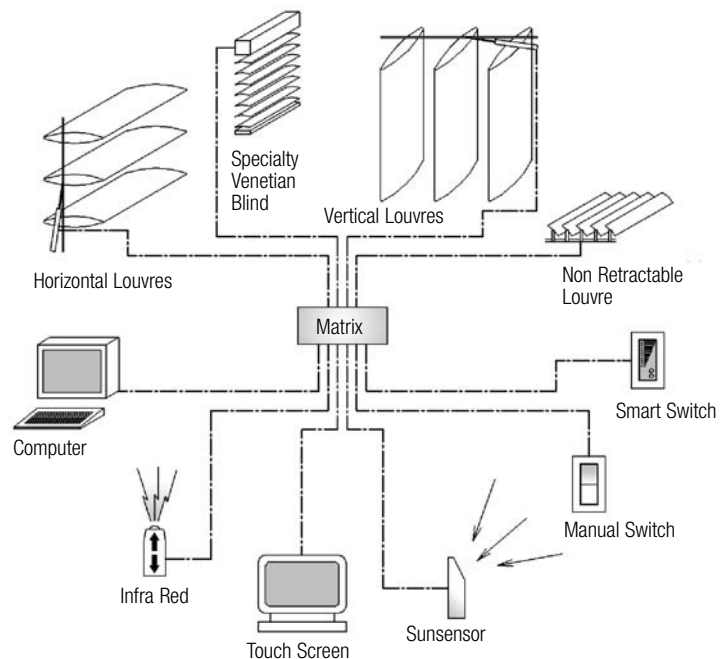
Product specifications are available in digital format.

Motorisation

CONTROL SYSTEMS

The Hunter Douglas Aerofins can be controlled by various systems of automatic control. In general we can provide two different systems: a conventional stand alone system with a central control unit, sun- and wind detectors and relay boxes for the motor control. We also can provide the more sophisticated systems with Smart control. In these systems, either stand alone or integrated in a building management system, the relay boxes are replaced by smart LON, BUS or EIB actors. With these smart systems a controlled sun following program can easily be adapted into the system.

Remote controlled systems are an other option for controlling the Aerofins. Based upon free ranges in the radio frequencies we can operate the motors by means of a transmitter (hand or wall system) and a receiver. The addressable motors can operate stand alone or in a definable group. Based upon your specification and functionality Hunter Douglas can help design the optimal system for your building.



Motorisation

GENERAL

The adjustable aerofin system consists of adjustable aerofoils, aerowings or aeroscreens interconnected by a driving rod, which is driven by an actuator.

The rotation angle of the fins is variable up to a maximum of 120 degrees. Adjusting the stroke of the actuator will set the position and rotation angle of the aerofoils.

The amount of aerofins, connected to 1 actuator depends on the type of aerofoil.
 Rough guideline:
 200FIN to 300FIN : 40 pcs/actuator
 350FIN to 450FIN : 25 pcs/actuator

There are 2 actuators. Which actuator has to be applied depends on the size of fins.

200FIN - 250FIN : actuator200
 300FIN - 450FIN : actuator300

The adjustable system is applicable for horizontal and vertical oriented fins.
 In case of a vertical fin orientation the actuator can be placed at the top or bottom side.

MULTIPLE BAY

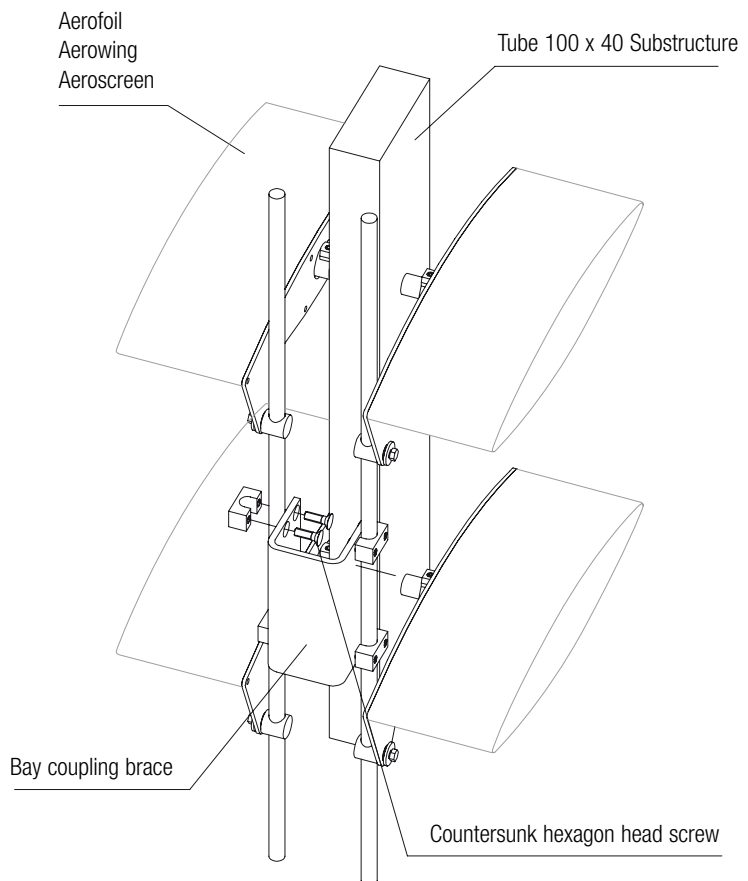
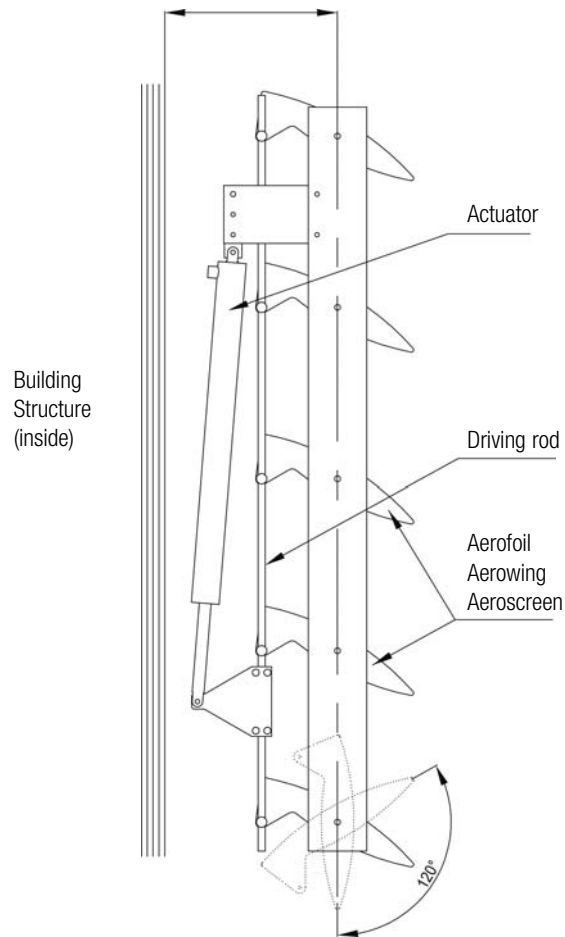
It is possible to adjust two bays of Aerofins with 1 actuator when a tube substructure is applied. The driving rod should be placed face-to-face. The coupling is provided with a bay coupling brace.

Note: This coupling does not apply for strip 100 x 10 substructures. But similar custom solutions are however possible.

ACTUATOR SPECIFICATIONS

Voltage	220	V~50 Hz
Stroke length	300 / 200	mm
Max. load	1200	N
Speed	6	mm/s
Max. current	0.55	A

Free Space:
 200FIN to 300FIN : 300 mm
 350FIN to 450FIN : 380 mm



Design Options

HORIZONTAL PROJECTED SYSTEM

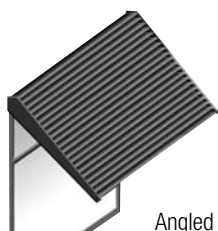
For high sun angles, the horizontal application assures a constant and reliable sun control system during sunny periods.



Horizontal

ANGLED PROJECTION SYSTEM

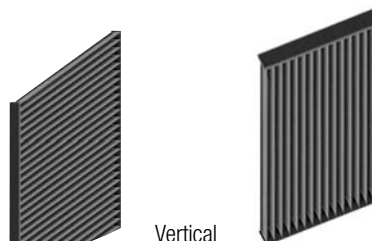
For high and medium sun angles, sloped applications give even more shade.



Angled

VERTICAL SYSTEM

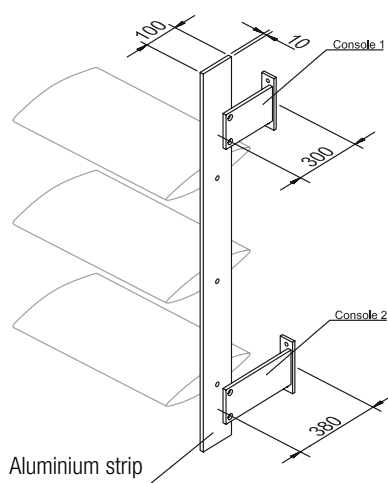
For lower sun angles, the vertical application allows a reliable sun control system with good visibility to the outside.



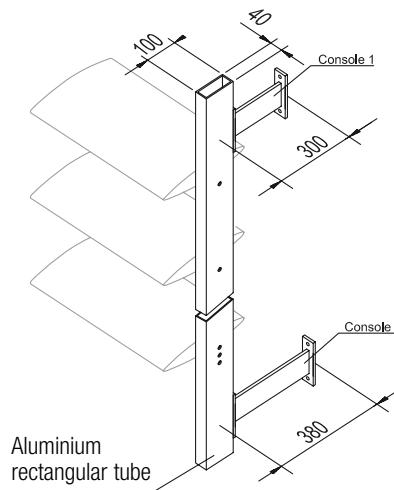
Vertical

SUPPORT STRUCTURE

Two standard support structures are available, tube and flat bar. This allowing you to choose the aesthetic look appropriate for the application. The structure is made in aluminium or optionally in galvanised steel.



Aluminium strip



Aluminium rectangular tube

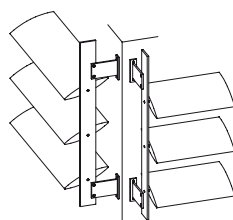
For each support structure there are two standard wall/façade mounts available:

- 300 mm deep
- 380 mm deep

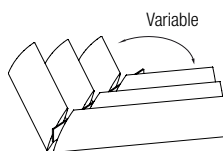
Non standard mounts are usually designed and manufactured by the installer.

CORNER SOLUTIONS

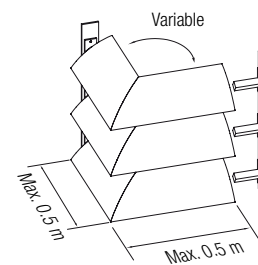
There is a solution for every corner angle with the Aerofin systems, some standard configurations are shown.



Open corner
(also for adjustable)



Mitre cut with bracket



Mitre cut welded

Panel type	Open corner	Mitre Cut	
		With bracket	Welded
Aerofoils	X	X	X
Aerowing	X	X	
Aeroscreen	X		

Light, Heat and Energy

COMFORT AND ENERGY SAVING

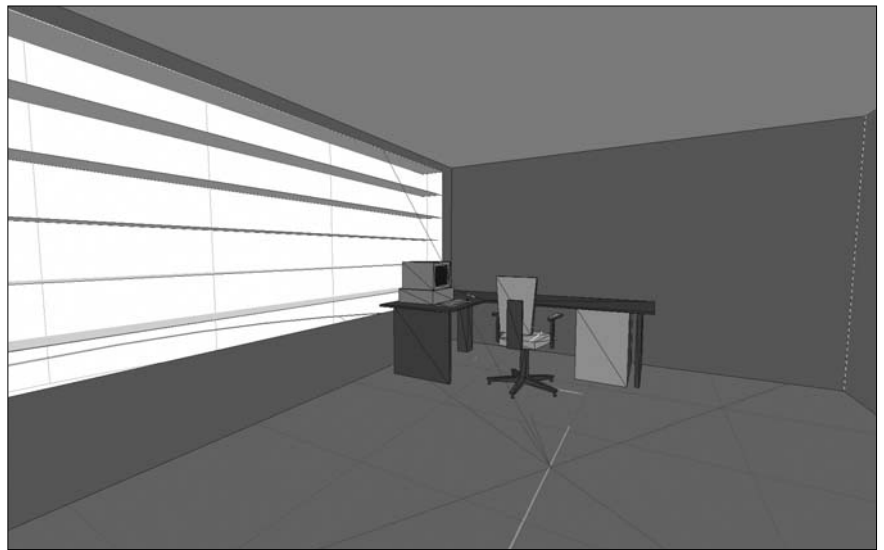
Using the right Sun Control System can have a big influence on the thermal and visual indoor climate. Making intelligent use of this influence not only improves the overall comfort experience of a room, but also energy costs (lighting, heating and cooling installations) can be kept to a minimum.

By effectively reducing the amount of solar radiation entering the building due to Sun Control Systems, the amount of energy needed to cool the building is immediately decreased. Therefore, the capacity of the cooling equipment can be reduced, resulting in lower initial investments and operational costs.

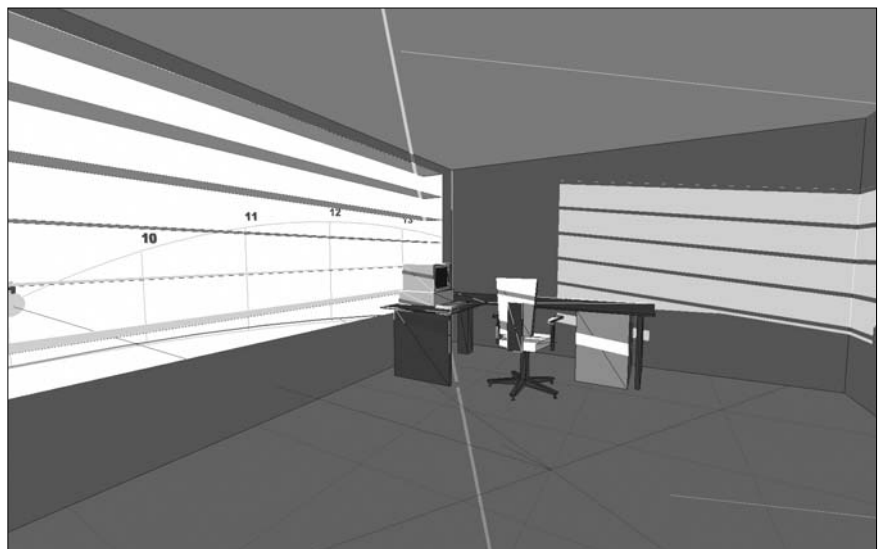
By either blocking, transmitting, or reflecting direct sunlight and daylight the Hunter Douglas Sun Control systems make optimal use of this free source of light. By analysing the shading performance optimal daylight levels are achieved and glare kept to a minimum, resulting in a healthy and productive working environment.

LIGHT AND ENERGY TOOL

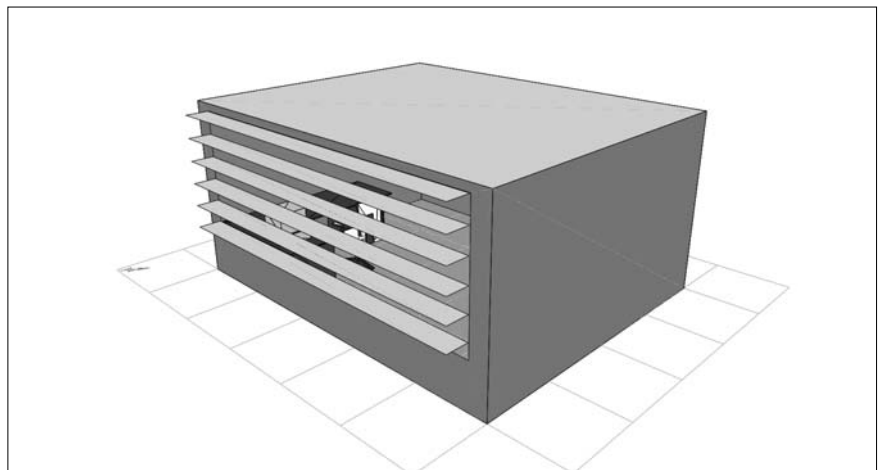
Hunter Douglas is equipped with the Hunter Douglas Light and Energy tool. These can be utilized to give a good impression of the effect of our wide range of shading products on the above comfort aspects. Comparisons using different Sun Control Systems can be made, resulting in an **optimal solution** for the required performance. The results presented in a report can be added to the building specifications, ensuring the comfort criteria will be met.



Internal view 12:00 AM, April 1st



Internal view 9:00 AM, December 1st



External view 9:00 AM, December 1st



HUNTER DOUGLAS ARCHITECTURAL PRODUCTS

For 80 years, Hunter Douglas has been dedicated to innovation. As the field of Sun Control grows, we pride ourselves on leading the way as pioneers in the area.

We're working alongside architects and designers throughout the globe, developing new, innovative methods of managing heat, light and energy. We've committed ourselves to crafting products that meet the highest standards of materials, construction and performance because we believe that you need the right tools to create projects that inspire.

Innovative Products Make Innovative Projects



Promoting sustainable forest management
www.pefc.org

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ARCHITECTURAL SERVICES

We support our business partners with a wide range of technical consulting and support services for architects, developers and installers. We assist architects and developers with recommendations regarding materials, shapes and dimensions, colours and finishes. We also help creating design proposals, visualisations and mounting drawings. Our services to installers range from providing detailed installation drawings and instructions to training installers and advising on the building site.



We are dedicated manufacturing a sustainable product. Our paint and aluminium melting processes are considered to be one of the industry standards in terms of clean production processes. All aluminium products are 100% recyclable at the end of their lifecycle.

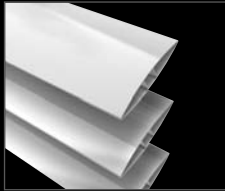
HunterDouglas

SUN CONTROL

Learn More

- Contact our Sales Office
- www.hunterdouglascontract.com

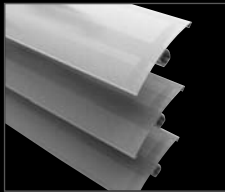
Aerofoils



Aerowing



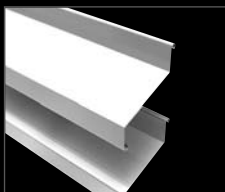
Aeroscreen



84R/100R



70S/132S



110HC



Sliding shutters



- Austria
- Belgium
- Bulgaria
- Croatia / Slovenia
- Czechia
- Denmark
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Kazakhstan
- the Netherlands
- Norway
- Poland
- Portugal
- Romania
- Russia
- Serbia
- Slovakia
- Spain
- Sweden
- Switzerland
- Turkey
- Ukraine
- United Kingdom
- Africa
- Middle East

- Asia
- Australia
- Latin America
- North America

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HunterDouglas