INNOVATIVE PRODUCTS MAKE INNOVATIVE PROJECTS







FACADE

SUN CONTROL

ARCHITECTURAL TERRACOTTA























































































Hunter Douglas Window Fashions, Broomfield (CO), U.S.A.







Hunter Douglas Japan, Ibaraki, Japan





Hunter Douglas Manufacturing, Guangzhou, China

















Hunter Douglas Schweiz, Root



Hunter Douglas Group

Hunter Douglas is the world market leader in window coverings and a major manufacturer of ceilings, sun control and façade systems.

Our strength is our ability of develop innovative, high quality, proprietary products that can be found in millions of homes and commercial buildings around the globe. We operate as a highly decentralized,

global federation of small and medium-sized companies that manufacture and market similar products.

From our founding in 1919, Hunter Douglas has been a home for innovators. Established by entrepreneurs, our culture is one of innovation and advancement that attracts the best and the brightest people. Our leadership position flows directly from continuous innovation within our business. These innovations come from a team of over 16,000 talented people working in over 100 countries. We consider their talents and skills to be the true strength of our organization.

Facades

Ventilated Facades

Quadroclad

NBK Architectural Terracotta

Multiple Panel Facades

Miniwave

Screen Facade

Custom Facade

Sandwich wall cladding

Sun Control Systems

Aerobrise

Aeroscreen

Motorisation

Linear 84R

Linear 70S/132S

Shutters

VENTILATED FAÇADES

Ventilated facades have become one of the building envelopes of choice today for architects and specifiers. Not only is it flexible, easy to install and aesthetically pleasing, the installation of ventilated facades can lead to greater energy efficiency.

Leading the world in ventilated facade technology, Hunter Douglas' flagship QuadroClad® Facade System was developed more than two decades ago from technology borrowed from the aerospace industry. Today, the group's key focus is on sustainability-achieved through its concentration on three themes: design, functionality and comfort.

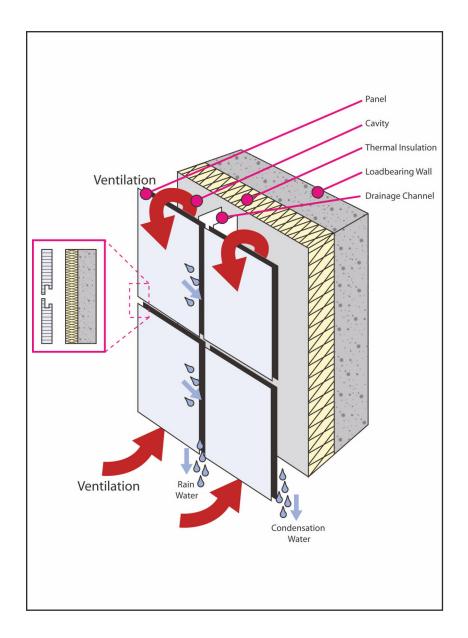
Ventilated facade technology

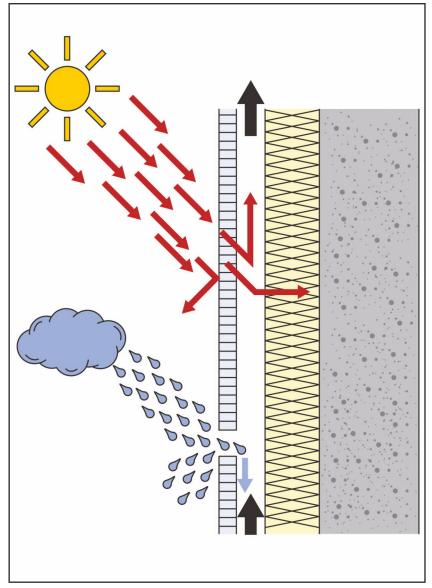
Ventilated facade technology utilises an open-jointed cladding system that is designed to work with nature. The open joints - which are effectively gaps between the cladding panels and other integrated facade elements-provide channels for ventilation as well as allow rain water and condensation to be drained off behind the cladding surface helping to achieve a much cleaner facade.

One of the advantages is that ventilated facades provide reliable heat protection. Air is drawn in at the floor level and at the open joints, and travels up. The building structure will not be directly heated by the sun, instead the cavity will be warmed, allowing any excess heat to escape upwards.

The facades also contribute towards enhancing a building's thermal performance. Firstly, the ventilated facade panels provide a (small) benefit to the U-Value of the wall behind due to the fact that they shield the building from direct wind and sun. Secondly, the large panel format and resulting shielding effect helps to reduce the number of thermal bridges-anything that goes through the wall's outer insulation layer-thus, maximising the performance of the insulation.

A true ventilated facade system provides durable weather resistance-protection from the sun, wind and rain - with moisture either descending by drainage channels or evaporating through the ventilation cavity.





QuadroClad®

Over 40 years experience façade supplier throughtout the world.

- 4-Sides-closed honeycomb panels
- Large panel modules (1500mm * 6000mm) larger panel upon request
- Wide range of thicknesses available 12/25/36/50mm & others
- Inherent strength of honeycomb panel requires a limited number of supports and suitable for high rise buildings in high wind load areas
- Choice of skin materials (zinc, aluminium, stainless steel etc.)
- Choice of coatings, Luxacote, PVDF Anodised, etc.
- Luxacote paint system has high scratch resistance
- Lightweight, only approx . 6kg/m2
- Small radius at panel edges
- Only fixed on two sides cost effective and time efficient installation

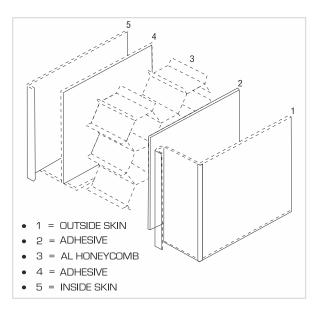
- Integrated system of panel and support structure can be fixed to any substructure (concrete, blockwork, brick-work etc)
- Extremely flat surface, little thermal bow-due to excellent heat conduction between inner and outer panel skins
- Panels can be curved, cranked, tapered or customized
- All panels are factory made (no secondary fabrication)
- Vertical and horizontal panels can be combined
- Panel erection sequence can be top-bottom, bottom-top, or any sequence to suit the building programme
- Can also be used on sloping facades or ceilings
- Open joints ventilated rainscreen technology helping to cool buildings



Shanghai Auto Museum, China QuadroClad



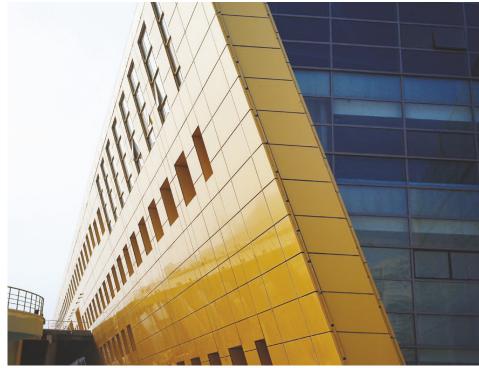
Canopy North Gate Office Building, Romania QuadroClad





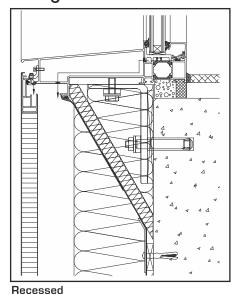


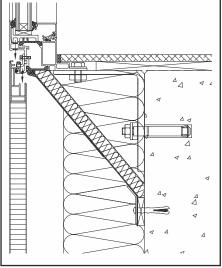
Trafalgar House United Kingdom QuadroClad



Sanmenxia Cultural & Sports Center, China QuadroClad

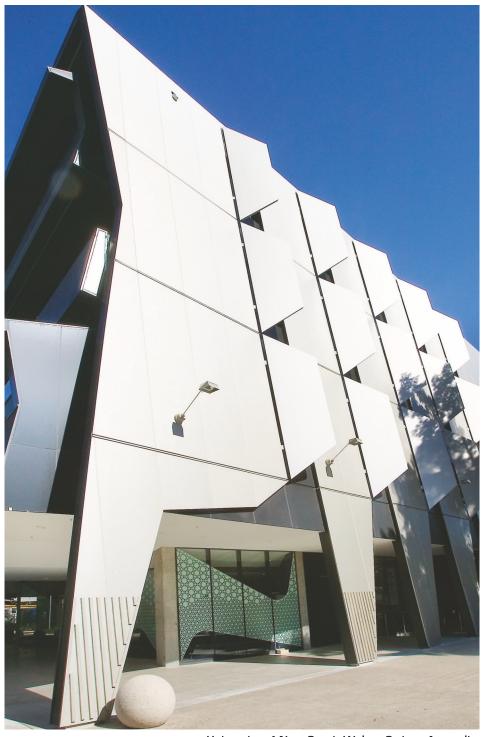
Integrated Windows



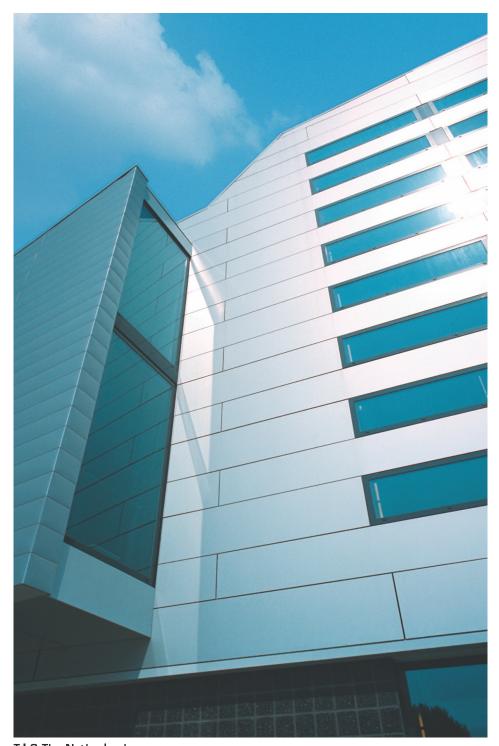


Flush

5

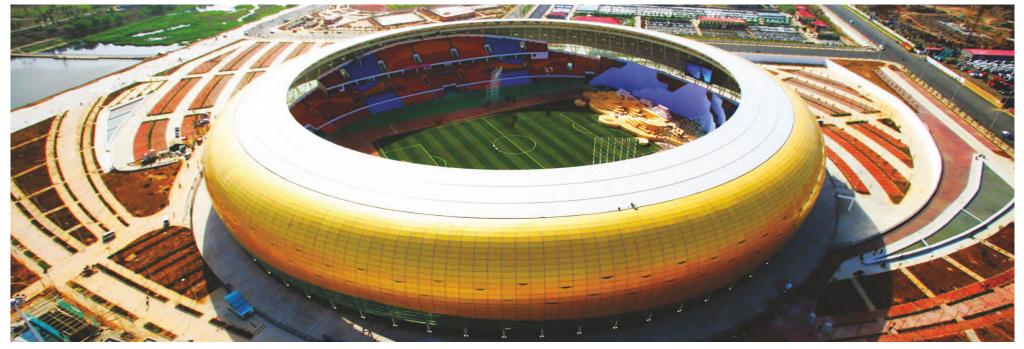


University of New South Wales, Sydney Australia QuadroClad

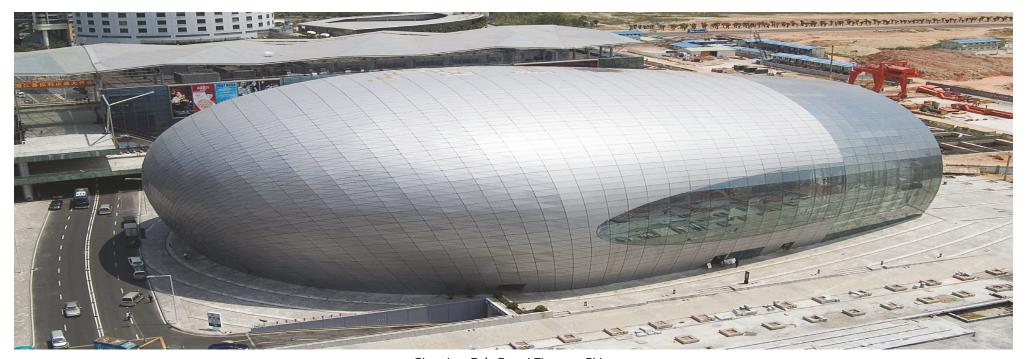


T.I.C The Netherlands QuadroClad





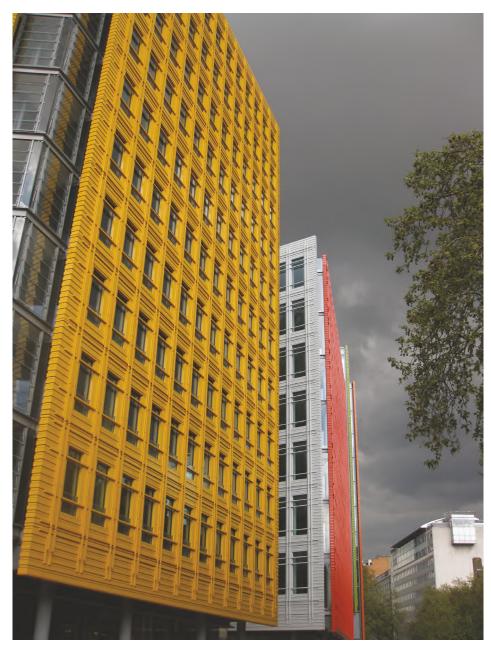
The Sanmenxia Cultural & Sports Center, China QuadroClad



Shenzhen Poly Grand Theatre, China QuadroClad



ARCHITECTURAL TERRACOTTA – A Modern Rendering Of The Traditional Elements



Architectural terracotta panel system is a kind of new curtain wall system, adorned with terracotta panels as a decorative surface and functions based on the rainscreen principle.

It's perfect and smart combination of traditional materials and modern architecture, featuring large-format panels, functionality and a complete system solution. The architectural terracotta products can be customized upon request into a huge number of special ceramic shapes and sizes. The surface design also offers a wide variety of options. Additionally, the distinctive elements and versatile surface finishes work together to create an impressive façade for buildings.

CS Central Saint Giles, London Terrart panel & Baguette

*NBK | ARCHITECTURAL TERRACOTTA



Shindong Raemian Apartments, South Korea NBK Mid 3

Architectural Terracotta

- Easy Mounting and maintenance thanks to the advance dry-hang system
- Sound performance for environmental protection: thermal-insulation and acoustical
- Large-format panels and precision engineering
- Rich colors with beautiful natural texture
- A variety of textures, combed, peeled, wire struck, sandblasted, other on request
- Strong development capabilities for customizable product systems.
- High durability long life time expactancy

VENTILATED FACADES

Hollow

- Panel thickness: 28mm x 40mm other on request
- Maximum size: 800mm x 1,800mm
- Weight per unit area: approx. 46kg/m2 - 59kg/m2

Solid

- Panel thickness: solid is 20 30mm, other on request
- Maximum size: 600mm x 1,200mm
- Weight per unit area : approx. 65 kg/m2

Baguette

Section sizes:

46mm x 46mm 50mm x 100mm 50mm x 50mm x 150mm

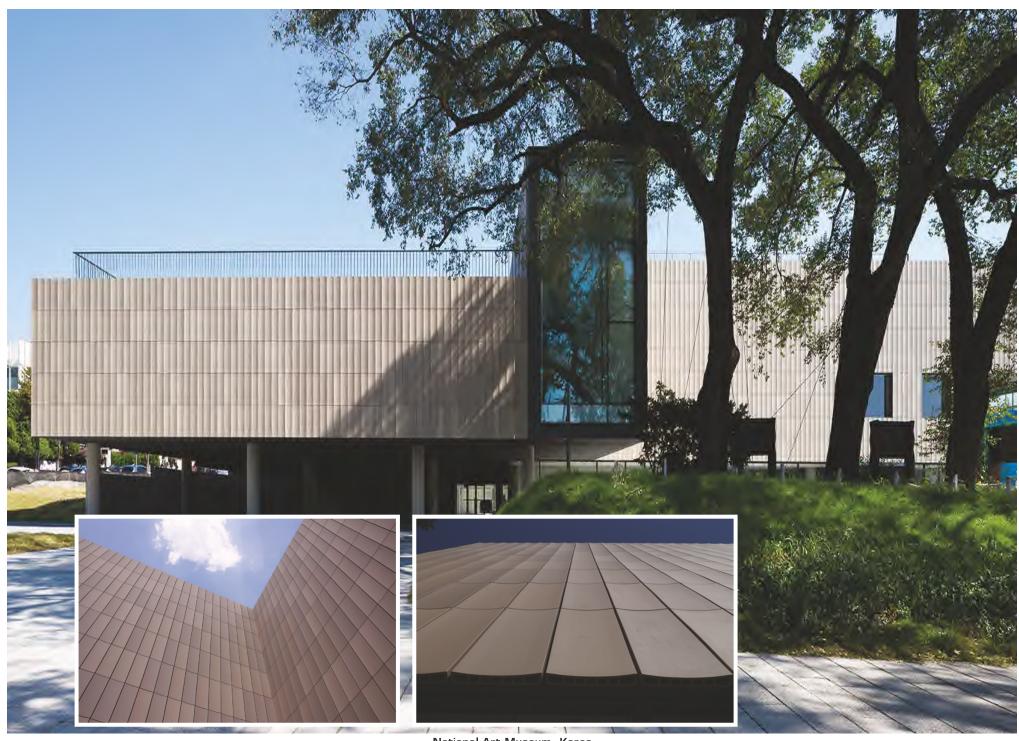
60mm x 60mm 50mm x 200mm

80mm x 80mm

- Maximum processing length: up to 1600mm, other on request
- Weight per unit area : approx. 3.2kg per lm for 50 x 50



Bunkyo Gymnasium, Japan Custom Shaped Baguette



National Art Museum, Korea Terrart Special





Metro Station 'Novokosino' Moscow Russia Terrart Mid



BSU Hamburg, Germany Terrart Custom



Vrbani III Zagreb Croatia Terrart Light



Private House in Hongcheon, Korea NBK 28T

MULTIPLE PANEL FACADE



Right : Optimus office building, Warsaw, Poland Architect: J. Romiszewska Product : Multiple Panel Façade, type 150F

The Hunter Douglas 150F/200F Façade System consists of 150 mm and 200 mm wide roll formed panels with a small buttjoint. The panels are coil-coated with the Hunter Douglas' UV and scratch resistant Luxacote® finish. The panels are made to measure and can be supplied in any length from 800 up to 6000 mm. The aluminium panels are recyclable, lightweight and strong.

The panels can be mounted with clamps, which allows for an installation with a mixture of panel widths and curved installations, or on a stringer for fast and parallel installation.

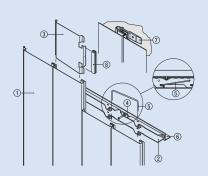
The total system has been tested for weather and wind resistance.

PRACTICAL APPLICATIONS

- The neat closed joints present a smooth uninterrupted appearance
- The façades have a concealed fixing
- Panel length made to measure up to 6000 mm
- Panels can be additionally secured to the stringer by using U-brackets, providing a very rigid system, able to withstand the most severe wind conditions (over 2000 N/m²)
- Panels are made from a corrosion resistant aluminium alloy
- The Luxacote® coating combined with aluminium of the highest category for corrosion resistance guarantees: colour and gloss stability, high scratch resistance and high corrosion resistance
- Screw clamp can be used for combining the two panel types
- Curved façades can be achieved by using screw clamps



150F/200F FAÇADE SYSTEM OVERVIEW

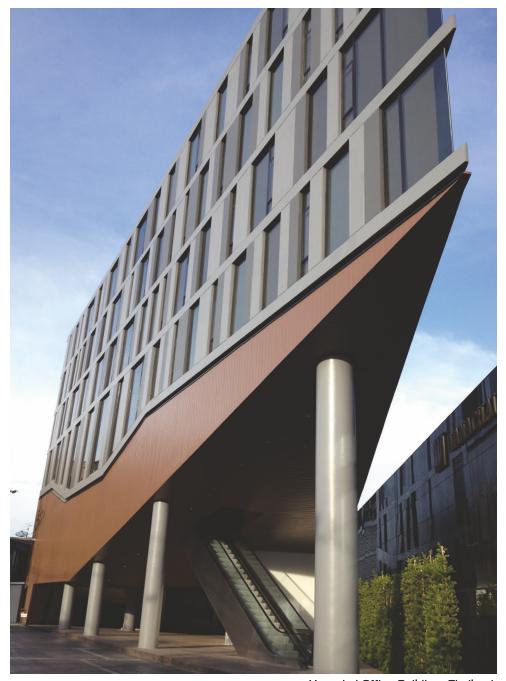


- 1 = 150F/200F panel
- 2 = 150F/200F stringer
- 3 = panel splice
- 4 = washer set
- 6 = non-HD sub-construction
- 7 = screw-clamp
- 8 = sealing piece

* Only used in case of extreme windloads Note: 150F/200F panels can be installed horizontally, vertically or diagonally depending on desired directional emphasis.

Above : Winmarkt Buzau, Romania Architect: Arh. Ovidiu Nicolaie Product : Multiple Panel Façade, type 200F





Vanachai Office Building, Thailand 150F



CDB Santo Amaro Diagnostics Center 400F

Miniwave Facade

The Luxalon Miniwave panel has been designed for the application of Interior & Exterior cladding. Its geometry is based on undulating lines that resemble a corrugated metal sheet. It has the advantage of being installed in continues lengths of max up to 6mtr with a tongue and groove joint system that conceals the fixing elements. Fixing system is specially designed exclusively for windy areas.

The lining can be installed with its waves in either horizontal or vertical position. The Perforated version of this panel can be used for acoustic purpose as well for special application on passive sun control.

PRODUCT DESCRIPTION

Material : Aluminium / GI

Material on Request : Zinc / Copper

Thickness & Weight : 0.5mm Thick GI, 5.62 kg/m²

0.7/0.8mm Thick Alu, 3.34 kg/m²

: Luxalon Standard Colours & Special Colours Colours

upon request (Interior / exterior)

Panel Coating : Coil Coated, Powder Coated & PVDF

: Plain / Perforated Finish

Panel Length : Project Specific, Max 6 mtr

: Advance 270mm (\pm 5) with yield of 3.7 panels / mtr Coverage

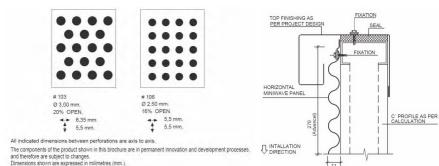
Application : External / Internal Cladding





PERFORATION DETAILS:

TOP FIXING POSITION:



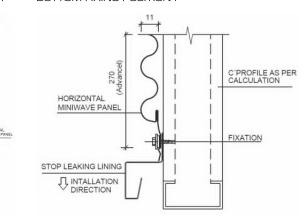
FIXATION POSITION:

OPTIONS S-MD 10-16 x 5/8" PPH #3 PHILIPS HEAD FIXATION S-MD 10-16 x 3/4" PPH #3 PHILIPS HEAD

OPTIONS FIXATION S-MD 10-16 x 5/8' PPH #3 PHILIPS HEAD

FIXATION S-MD 10-16 x 3/4* PPH #3 PHILIPS HEAD

BOTTOM FIXING POSITION:







Miniwave Facade













Screen Facade

Exterior screens from Hunter Douglas helps to make maximum use of natural daylight and manage solar control. The preforated metal screen panel let sunlight move in to the interior while reducing thermal gain.

PRODUCT DESCRIPTION:

Material : Aluminium

 ${\sf Material\ on\ Request} \quad : \quad {\sf GI\ /\ Zinc\ /\ Copper}$

Thickness : 2mm or 3mm Thick Aluminium (4mm on request)

Colours : Luxalon Standard Colours & Special Colours

upon request (Interior / exterior)

Panel Coating : Powder Coated & PVDF

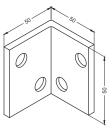
Finish : Plain / Standard Perforation / Custom Perforation

Panel Length : Project Specific, Max 4.5 mtr (Subjected to design)

Panel Width : Project Specific, Max 1 mtr (Subjected to design)

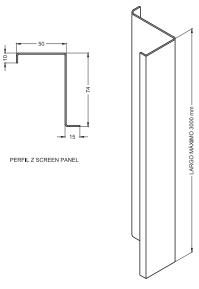
Application : External / Internal Cladding

COMPONENTES

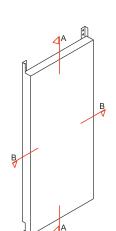


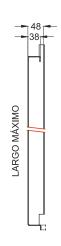


GUA DE SOPORTE

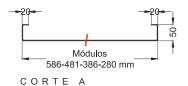


SCREENPANEL G





CORTE A





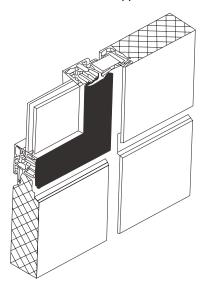
SANDWICH WALL CLADDING







GIFU Information Centre, Mori-no Terrace, Japan



- Horizontal, Vertical and diagonal applications
- Unmatched panel flatness
- Curved and cranked panels
- Unique and secure mounting system
- Outstanding corrosion, scratch and UV resistant attractive finish
- Mineral wool or foam core
- Made-to-measure
- Modules from 200mm up to 1500mm
- Highly Insulated panels thicknesses include 50, 75 & 100mm
- Total façade system including windows, doors and louvers



Rolls-Royce, Glasgow, United Kingdom



Changchun Railway station, China



Polynorm, The Netherlands

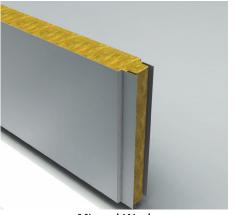


Birmingham Children's Hospital, United Kingdom





Foam



Mineral Wool



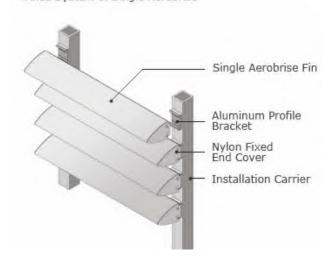
Integrated Window

SUN CONTROL SYSTEMS (AEROBRISE AB)

Hunter Douglas[®] Sun Control System program contains a highly aesthetically pleasing selection of products and innovative solutions. When included in the design stage, the Sun Control System will become an integral part of the building architecture. HunterDouglas[®] has achieved a complete Sun Control System program with which new as well as existing buildings can be equipped.

- Highly aesthetic, stylish products
- Effective sun control by selecting the right product from the HunterDouglas® program
- Colour availability, many standard colours and custom made to order
- Flexible solutions, dimensions and shape adaptable to design of building
- Proven product quality, tested in real-life situations
- Durable solutions, use of aluminium and Luxacote[®] -UV and scratch resistant coating
- Strong and reliable partner, experienced in Sun Control Systems since 1961.

Fixed System of Single Aerobrise

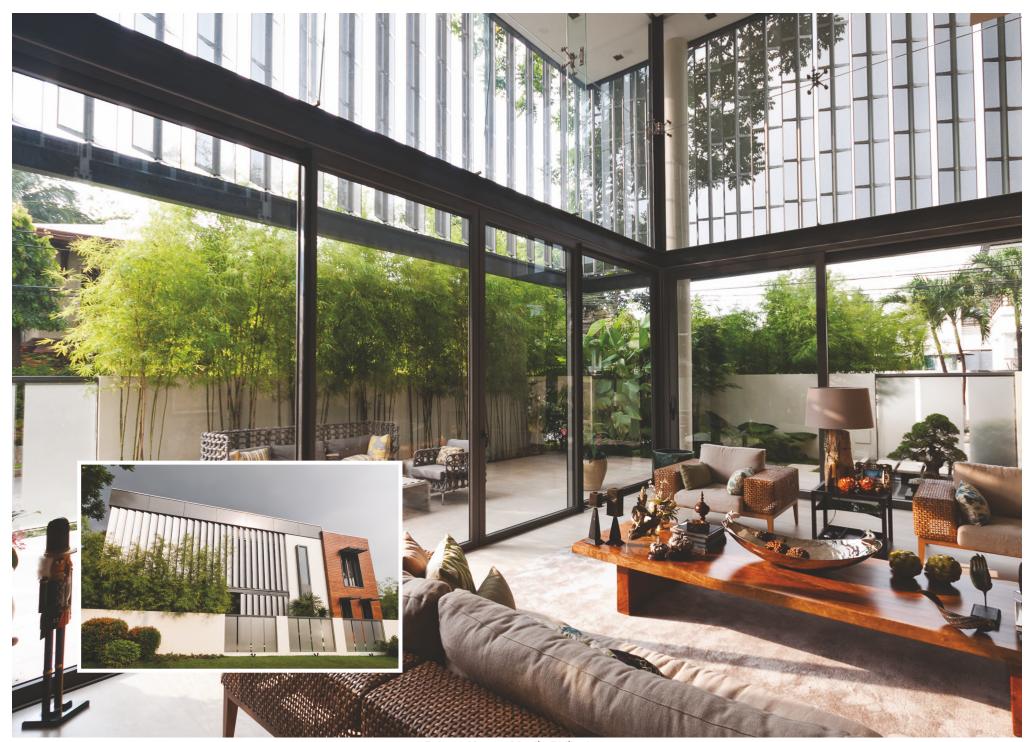


*Single Aerobrise Available in AB100, AB150, AB200 & AB250



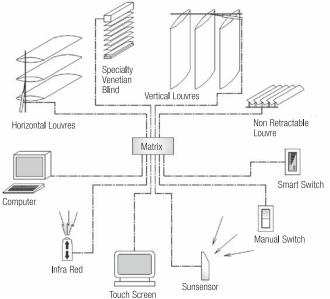
Enrich Platinum FC@Kota Damansara, Malaysia AB 300 louvre





Private House, Manila Philippines Aeroscreen 450





CONTROL SYSTEMS

The Hunter Douglas Aeroscreen® can be controlled by various systems of automatic control. In general we can provide three 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. 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 Aeroscreen®. 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.

Project : Nanjing Library Architect : ZUADR Product : Aeroscreen®



MOTORISATION

GENERAL

The adjustable aerofin system consists of adjustable Aeroscreen® 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 Aeroscreen® fins, connected to 1 actuator depends on their type and size.

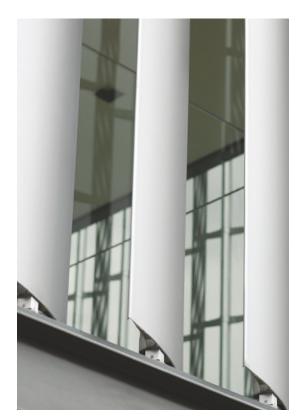
Rough guideline:

12m² / actuator (external)

20m² / actuator (internal)

There are many available types of actuator depending on fin size, quantity, loadings etc and project complexity.

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.



Project : Avansalud Clinic, Santiago - Chile Architect : Carlos Elton & Asociados Arquitectos

Product : Aeroscreen®

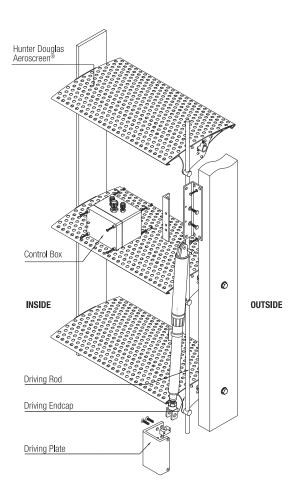
MULTIPLE BAY

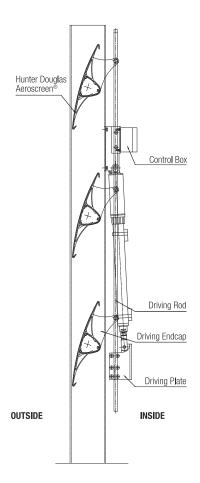
It is possible to adjust two bays of Aeroscreen® with 1 actuator when a tube substructure is applied. The driving rod should be placed face-to-face. The coupling is provided with a bay coupling brace.

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

ACTUATOR SPECIFICATIONS

Stroke length	300 / 200	mm
Max. load	2000	N
Speed	5	mm/s
Max. current	1.7	А

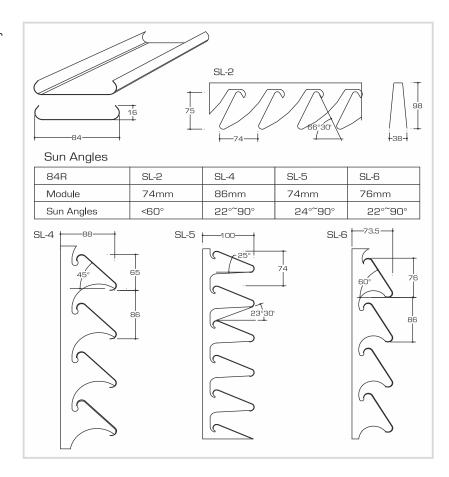


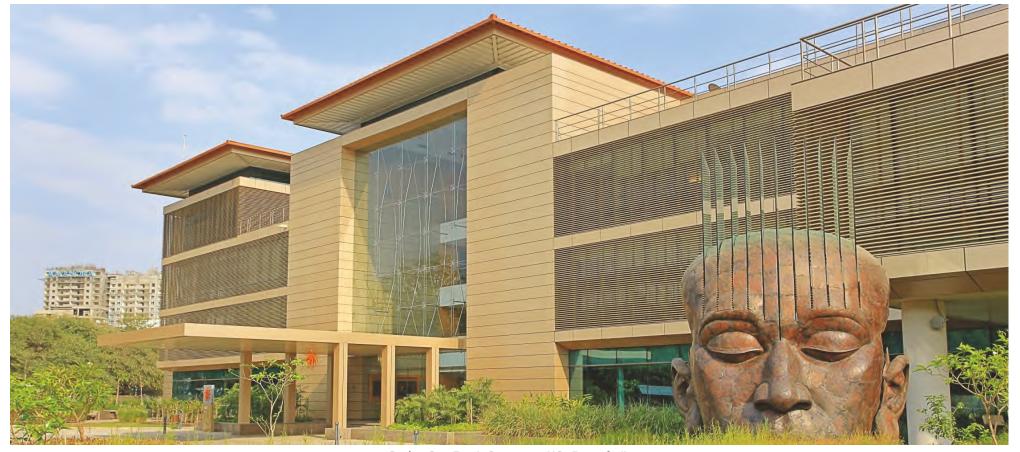


SUN CONTROL SYSTEMS (84R)

HunterDouglas® 84R Sun Louvre system is a real classic, used for applications on straight, curved or angled facades. The product has an elegant and light appearance with nicely curved edges

- Roll formed aluminium panels of 84 mm wide
- Coil coated with a UV and scratch resistant Luxacote® coating, available in 14 standard colours. Other colours on request
- A variety of carrier systems with fixed or variable modules are available allowing the optimal solution for their application
- HunterDouglas® 84R system can be installed in four ways:
 - Projected horizontally, at the top of the glazed area
 - Angled projection, to give even more shade
 - Positioned vertically
 - Combination of horizontal and vertical
 - Bent or curved to follow the shape of the building
- Panels can be connected to achieve an endless appearance
- Span at an everage wind load 1.2m.
- Corner solutions available
- Can also be used as ventilated facade system, covering for example installations on rooftops or staircases





Suzlon One Earth Corporate HQ, Pune, India



Kielce Fairs Poland 84R



Armanee Condo@Damansara Perdana, Malaysia



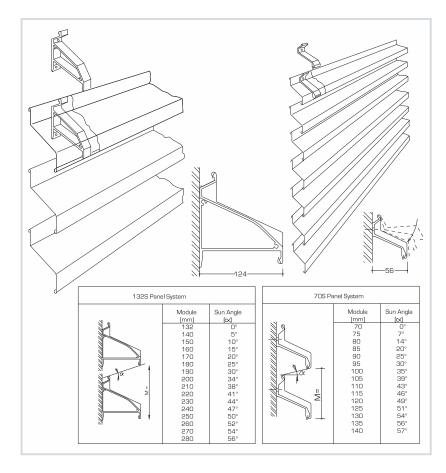
Neo Hotel, Bali Indonesia

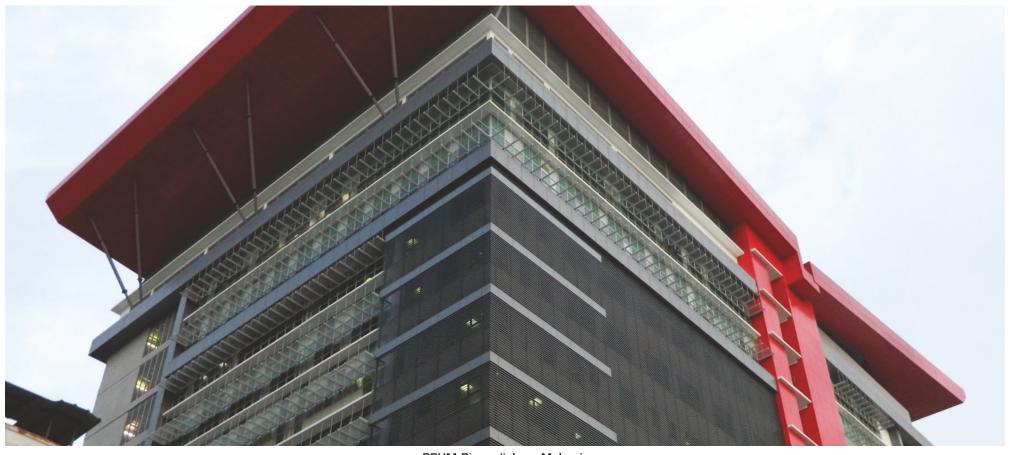


SUN CONTROL SYSTEMS (70S/132S)

HunterDouglas® 70S and 132S Sun Louvre system consist of Z-shaped sturdy panels. The panels are used in order to achieve a crisp Sun Louvre or facade, resulting in an overall aesthetically pleasing appearance.

- Roll formed aluminium panels of 70 or 132 mm wide
- Coil coated with a UV and scratch resistant Luxacote[®] coating available in 14 standard colours. Other colours on request
- Stylish carrier rails with sliding brackets allow a variable module by which openness and shading angle can be selected
- 70S and 132S panels can be combined on one support rail
- HunterDouglas® 70S and 132S Sun louvre system can be installed in two ways:
 - Projected horizontally, at the head of the glazed area
 - Positioned vertically
- Span at an everage wind load 1.3 m for 70S and 1.8 m for 132S
- Corner solutions available
- The vertical HunterDouglas® 70S and 132S Sun Louvres combine multiple functions in a single product:
 - The Z-shaped panels have been specially developed as a louvre system for facades exposed to low sun angles
 - It can also be used as ventilated facade system, covering for example installations on rooftops or staircases





PPUM Biocardiology, Malaysia 132S sun louvre system



USJ Height Residence, Malaysia 70S Sun Louvre System



Lam Soon Factory, Malaysia 132S Sun Louvre System



Amsterdam High School, Hanoi, Vietnam 132S sun louvre system

NEW: SHUTTERS

HunterDouglas[®] Shutters are a design trend in architecture. The systems, vertically mounted to the façade, gives the architect the opportunity not only to focus on sun control and privacy, but also on the façade's visual enhancement. Hunter Douglas Shutters are manufactured from high quality materials and are suitable for many different types of buildings. The features offered by these shutters allow them to be incorporated during the early design stage.

On project base we also offer Folding Shutters, their special and technical appearance allow the architect to make a statement in the building design. These systems need to be fully incorporated in the building structure and therefore we offer you the expertise of our design team that must be involved in an early stage of the building development.

Range of Shutters

- · Sliding Shutters
- Folding Shutters
- · Custom Shutters



Nieuw Australie, The Netherlands Sliding Shutters



Fioretti College, the Netherlands Folding Shutters



Designcentre De Winkelhaak, Belgium Custom Shutters

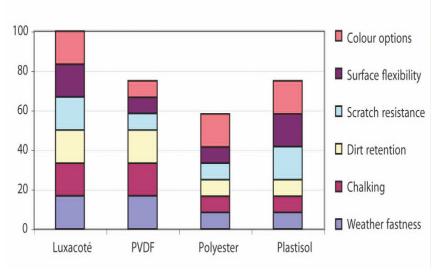


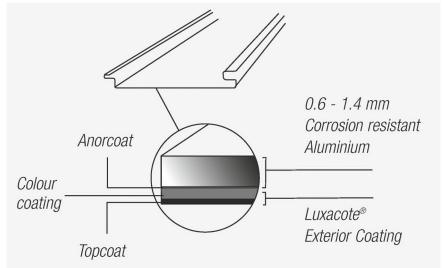
UNPRECEDENTED PROTECTION LUXACOTE® FOR EXTERIOR APPLICATION

LUXACOTE® is an exclusive Hunter Douglas innovation that enhances the durability of exterior aluminium building application. Its strength and efficiency comes from a powerful 3-layered system that consist of an anorcoat pretreatment, a colour coating, and a transparent topcoat.

The benefits of LUXACOTE®

- Durability
 - protects the aluminium surface from corrosion.
- Powerful pigments
- Topcoat
 - protect from UV rays, improving the durability of the colour and gloss
- Colour and gloss stability
- Corrosion resistance
- High scratch resistance





Characteristic	According standard	Specification
Coating thickness	EN 13523-1, ISO 2360	24-32 microns
Gloss	EN 13523-2, ISO 2813	28 ±5 units
Gloss variation within 1 delivery	EN 13523-2, ISO 2813	± 3 units
Colour difference compared to standard	EN 13523-3, ISO 7724, part 3	∆E<2 units
Colour variation within 1 delivery	EN 13523-3, ISO 7724, part 3	ΔE<0.7
Flexibility	EN 13523-7, ISO 1519	depends on chosen aluminium and required profile
Adhension	EN 13523-5, ISO 6272 EN 13523-7, ISO 1519 ISO 2409	impact: 2T: no loss of adhesium
Pencil hardness	EN 13523-4 ASTM D 3363	≥HB
Durability	EN 1396, EN 13523-19	highest category (see table C3)
Corrosion resistant	EN 1396, EN 13523-19	highest category (see tabel C2)
Humidity resistance	EN 13523-9, ISO 6270 ISO 4628/2	blisters less than size 2 (S2 or S3)
Salt acetic acid spray test	EN 13523-9, IS 4628/2	1000 hours, less than 2 mm. Undercreep a blistering max. S2 or S3
Salt spray test	ISO 7253	test too mild for aluminium

HunterDouglas 👉 Architectural

Vietnam | Thailand | Taiwan | Singapore | Philippines | Malaysia | Korea | Japan | Indonesia | India | Hong Kong China | Africa | Australia | Europe | Middle East | Latin America | North America











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