

MicroLouvre Solar Shading Systems

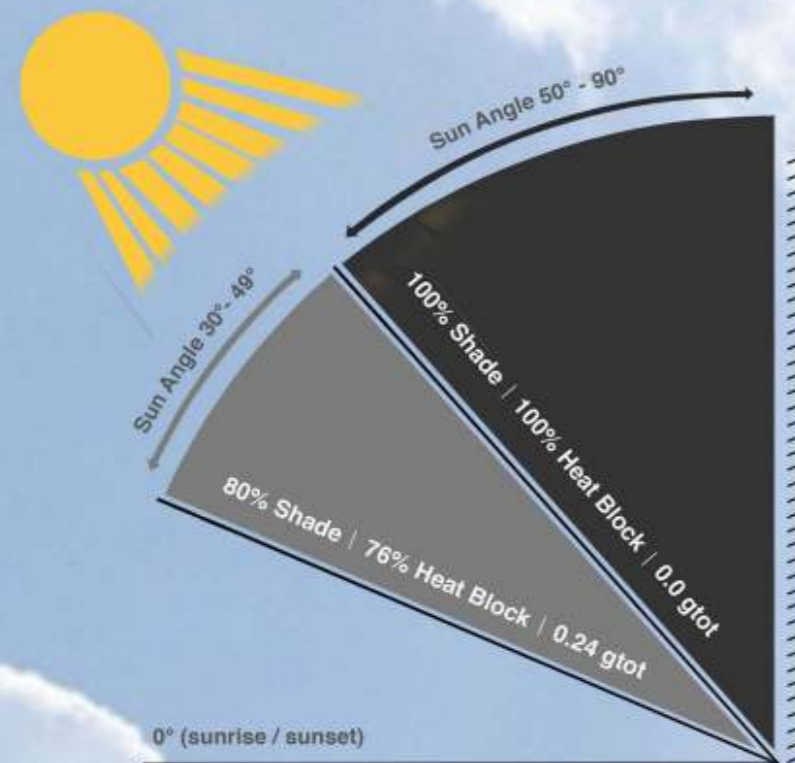
Sustainable shading with unrivalled performance



MicroLouvre™ solar screens are the result of decades of extensive and exhaustive international research and development. It is probably the most efficient modern method of solar shading in the world.

The fabric was invented in the late 1930s by John J. Grebe who was then Director of Nuclear Research at The Dow Chemical Company. The totally unique weaving machines were developed in co-operation with BorgWarner and the Koolshade product, now known as MicroLouvre™ Koolshade, was born.

The unique system of angled miniature bronze louvres dissipate the sun's heat, stopping it from ever reaching the window, but at the same time permits full natural daylight and outward vision for occupants. It has been used all over the world on every type of building as a solution to overheating and provides unrivalled visual comfort.



Each louvre angle is at 17° which ensures optimum light in, ventilation and visibility out, whilst blocking heat and glare.

The louvres allow fresh air to pass through, and being angled, provide an air flow that has a distinct upwards trend, supporting room cooling strategies.

With its passive, angle selective, maintenance free technology, MicroLouvre™ supports all today's energy saving, fire resistant and sustainable building performance requirements.



Tested Performance

MicroLouvre™ is proven to:

- Stop up to 100% of total solar heat gain
- Absorb up to 97% of the sun's radiation
- Allow 51% light transmittance through fabric
- Allow 100% CRI transmission



100% Shading

Provides 100% shade during peak sun hours (when the sun is at 45° angles or higher)



Blocks solar heat gain

The unique system of angled miniature bronze louvres stops the sun's heat from ever reaching the window



Fully non-combustible

Our screens conform to A1/A2 Fire Performance rating



Reduces HVAC requirements

Tests show the reduction in cooling loads post install has been up to 68%



Balanced natural daylighting

The angle of the louvres (17°) allows the optimum unfiltered daylight in, with full CRI



Removes hot spots

Seats close to windows are as protected as any other, so no floorspace is wasted



Allows fresh air flow

The 80% open area between the angled louvres provides a fresh air flow with a distinct upwards trend

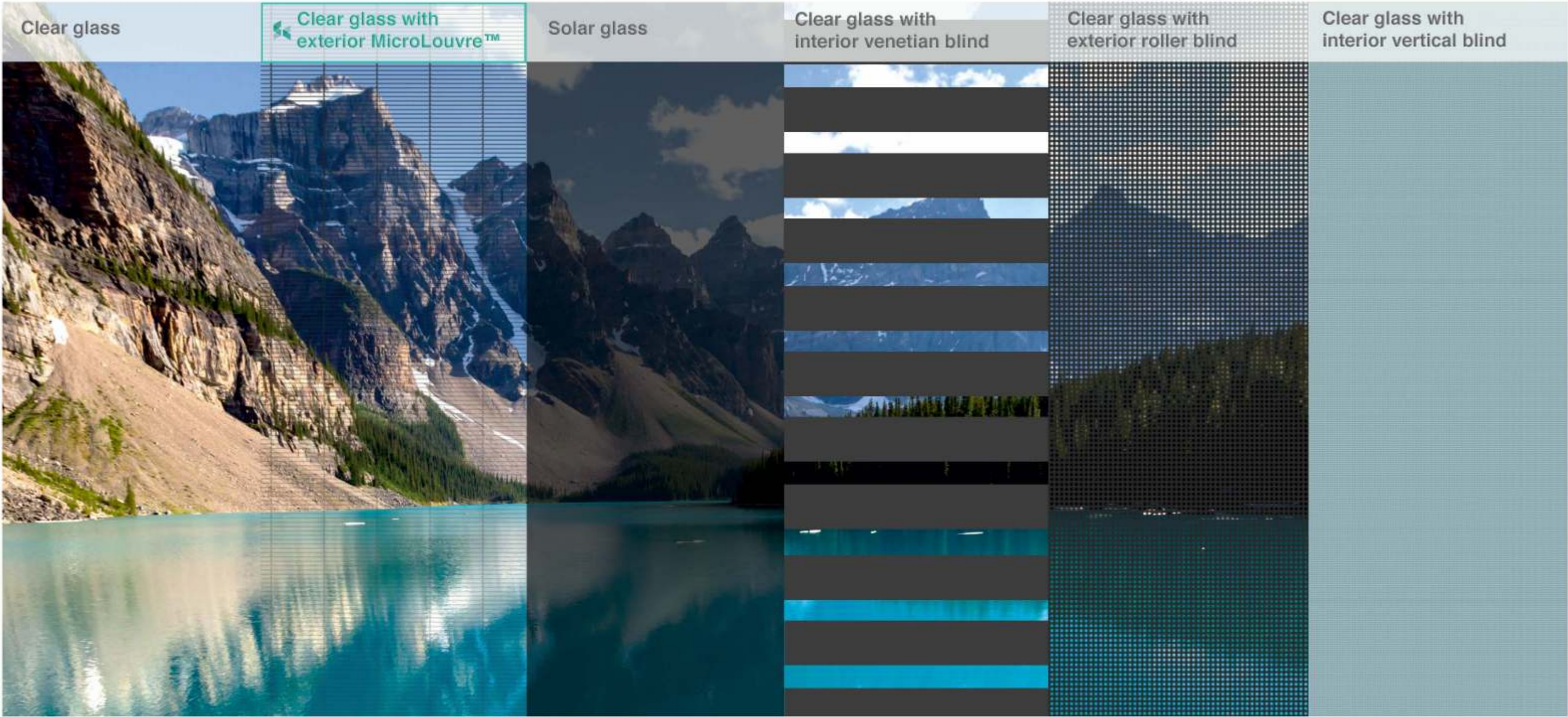


Uninterrupted views out

The micro fine louvres disappear from the occupant's eye, providing unrivalled visual comfort

Unrivalled shading performance

MicroLouvre™ has achieved top Class 4 classification for Thermal Comfort, Daylight Utilisation and Contact with the Outside, with 100% daylight quality Colour Rendering Index (*AST)

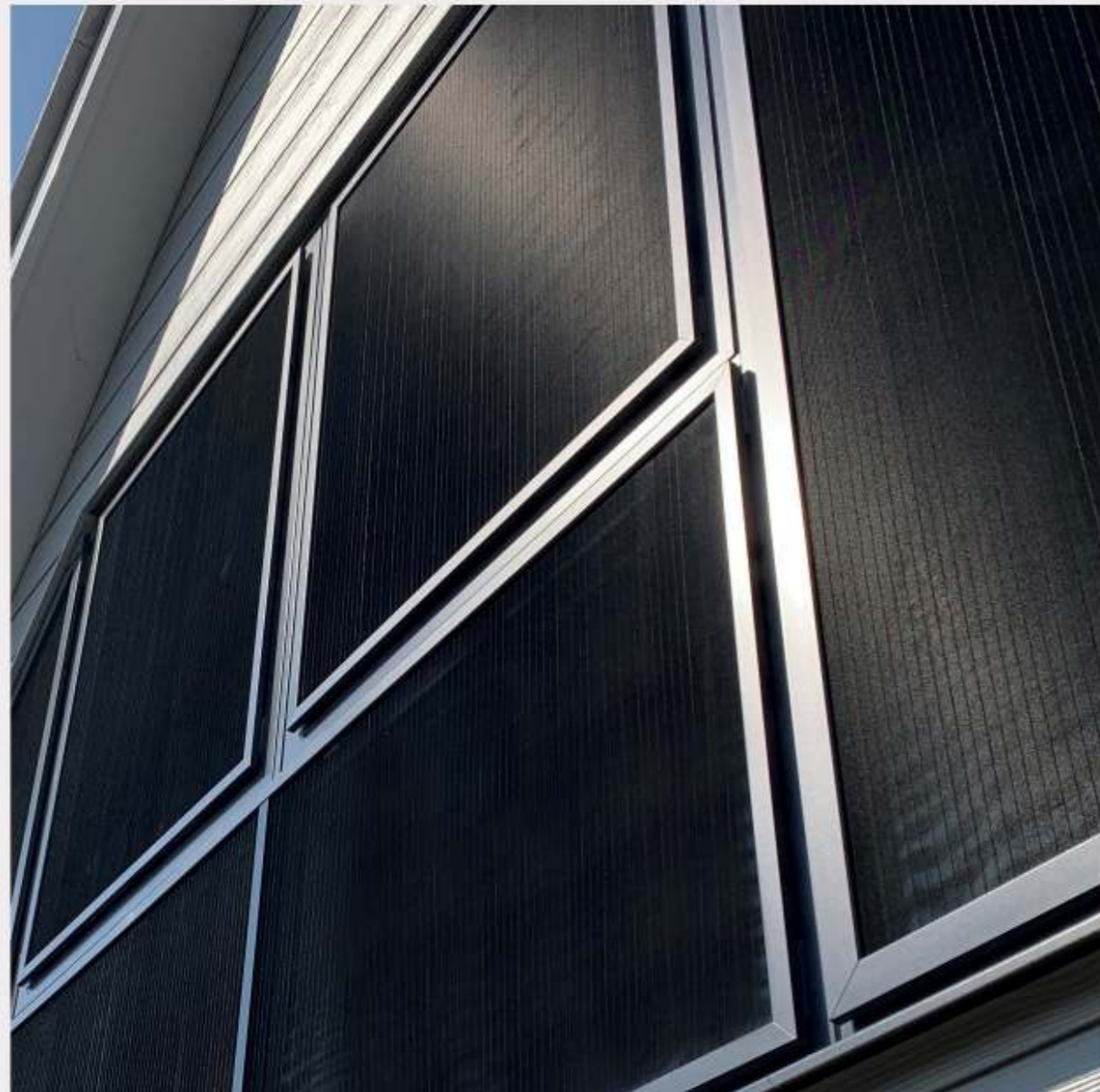


Typical Thermal & Visual Comfort comparisons as defined by BSEN 14501

N/A openness factor	68% openness factor	N/A openness factor <small>(for glass)</small>	45% openness factor	25% openness factor	0% openness factor
0.87 g-value <small>(glass only)</small>	0.00 gtot*	0.22 g-value <small>(glass only)</small>	0.45 gtot	0.22 gtot	0.53 gtot
85% light transmittance	43% light transmittance	20% light transmittance	40% light transmittance	32% light transmittance	0% light transmittance

A passive, maintenance free solution

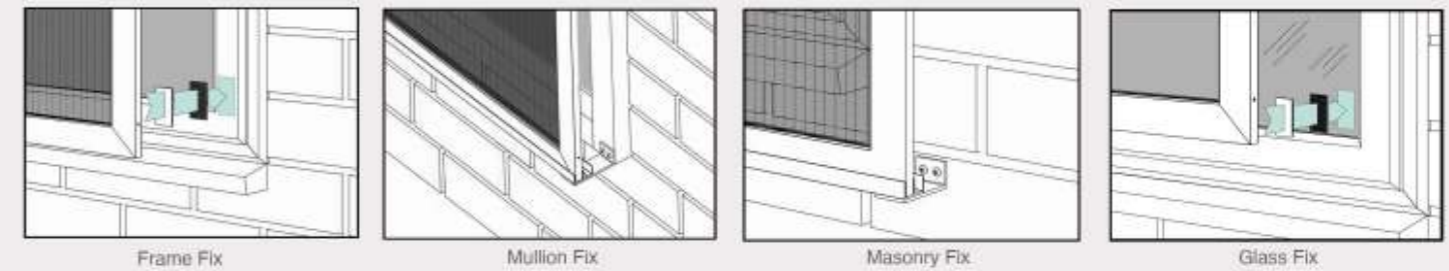
- Light, quick and easy to install
- Minimal structural loading
- Can be fixed to façades, windows, mullions or direct to glass
- Dynamic and moveable where required
- Wind resistant up to 100+mph/160+kph
- Glass can be cleaned through screens (by simple pressure wash)



MicroLouvre™ screens are designed to be passively installed to the building. They fix seamlessly to the façade, or to existing windows or mullions, to complement the original window array. We have standard fix options to suit most buildings but can also work with your designers to accommodate bespoke requirements.

Successfully installed worldwide for over 50 years MicroLouvre™ screens rejuvenate buildings with a uniform finish, transforming the façade, whilst the occupants enjoy unobstructed views out.

How do the screens fix to the building?

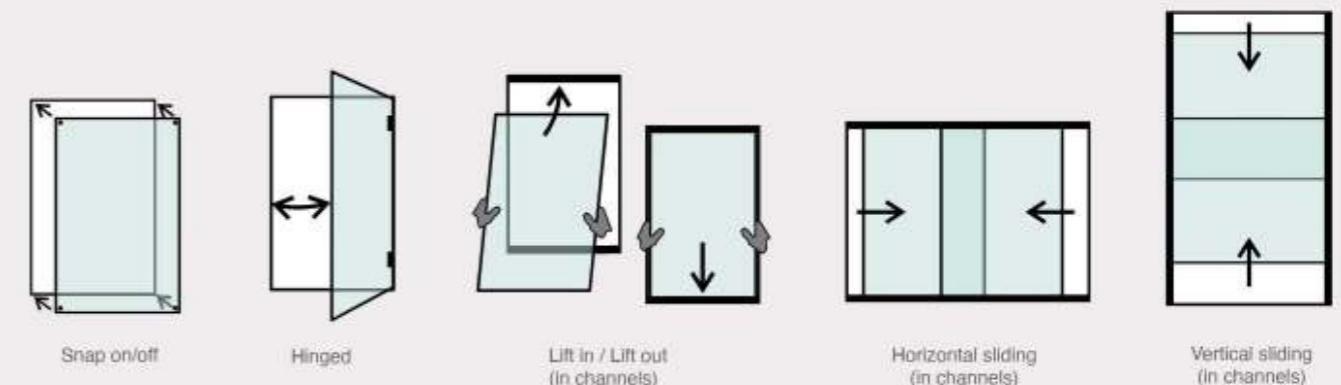


Fixings depend on the façade or window frame materials. The preferred option is to use mechanical fixings but due to the lightweight nature of the screens, adhesive solutions such as 3M VHB Dual Lock or Foam Tape can also be used.

What if I need access to the windows?

The micro fine louvres protect the building and windows from debris and dust. They are simply fixed to the building and do not need to be removed for maintenance. Project examples exist that are directly fixed and have been in place for over 50 years, across the globe. Cleaning of the glass can be performed without removal of the screen through simple pressure washing when required.

Some buildings simply prefer the option of moveable/removeable screens and for these, we can offer engineered solutions as follows:



Sustainable, fully non-combustible and durable

MicroLouvre™ supports all today's energy saving, fire resistant and sustainable building performance requirements.



Indianapolis City County Building

Before



After



Before



After



Fully non-combustible

Our screens conform to A1/A2 Fire Performance rating



Longevity

A proven lifetime of installed screens exceeding 50 years



Zero maintenance

A simple pressure wash is recommended once a year



Hurricane proof

BRE tested, proven to withstand 100+mph/160+kph winds from multiple angles

A retrofit solution for any building

Screens can be configured to discretely replicate or complement the style and colour of the building façade. We are proud to have sensitively restored heritage and listed buildings around the world.

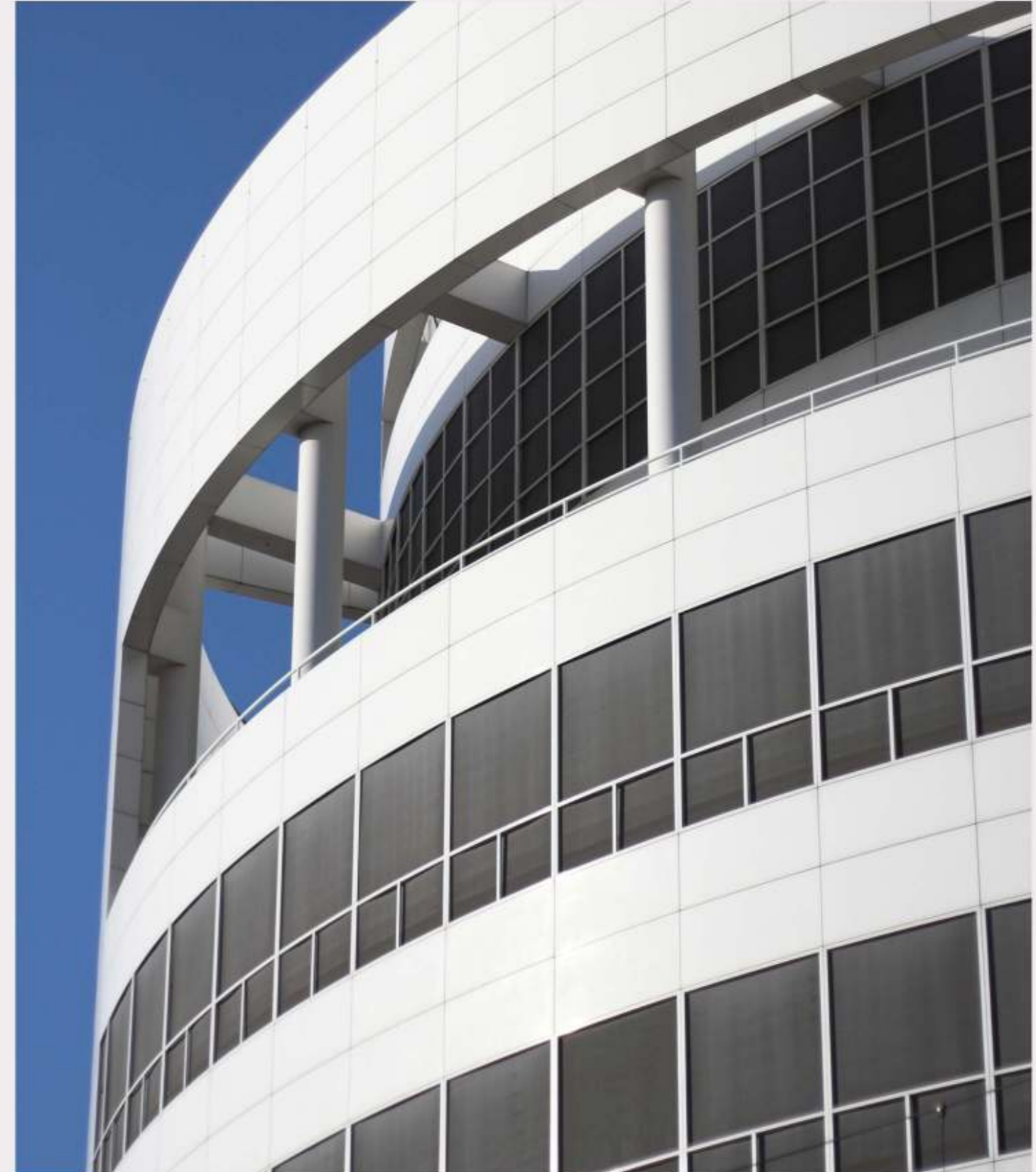


Any shape or style of window

MicroLouvre™ screens can be custom made from a wide range of materials to suit any shape or size of window. They are simply fixed to the building exterior or the window itself and do not need to be removed for cleaning.



Museum of Arts - Oslo, Norway



The Royal Library of the Netherlands
The Hague, Netherlands



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Hurricane proof

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Lightweight & easy to fit

Simple to install or retrofit with arrangements to suit any window type



Zero maintenance

A simple pressure wash is recommended once a year



Security

Protects against window damage and flying debris



Privacy

Providing directional privacy to block view into the building



Bespoke configuration

Screens are available in almost any colour, shape or window style



Insect & pest protection

The miniature louvres provide greater protection than insect mesh

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