

ARCHITECTURAL SCREENING

Zefyr

*Innovative Building Solutions*



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## Introduction

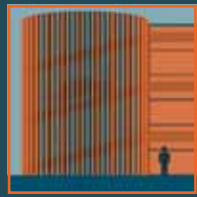
Zefyr Group - Design, Manufacture and Installation of Innovative Building Solutions for a Sustainable Environment

Zefyr specialises in bespoke façade and roofing “Architectural Screening” systems, to suit almost any architectural specification, providing a comprehensive range of bespoke and off-the-shelf solutions. With our global portfolio Zefyr can offer a world-wide service.

Zefyr systems have a wide verity of materials available which are design to be long lasting with low maintenance which are cost effective to keep with budgets. These systems are used in multiple types of buildings and often have bespoke designs to incorporate entrances and barriers.

The Zefyr vision is to be a world-leading force in environmental and architectural engineering through it’s excellence in providing a unique range of products and services.

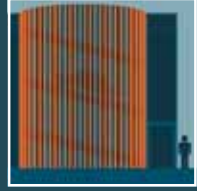




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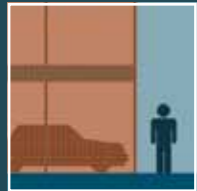
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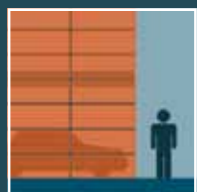
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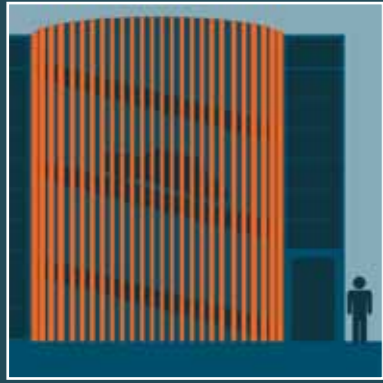
## Architectural Screening

Zefyr's "Architectural Screenings" are tailor-designed; bespoke façade and roofing systems that are flexible suit design principles. These cost-effective systems are low maintenance and designed to be highly durable boasting a specialist coating to coordinate with any architectural spectrum - along side this the use of innovative fixing techniques allows the system to be installed on to any structure.

The use of a wide variety of materials including timber, aluminium, steel, stainless steel, copper and many more, allow all design scenarios to be catered for. This integration of recyclable, sustainably sourced materials into industrial design is helping to reduce the increasing human impact upon the environment.

Zefyr's bespoke systems can be tailored such that they can be used for more than just hiding structures or plant and machinery, but can be used to clad buildings, such as multi-storey car parks, to help provide ventilation and aesthetically enhance the appearance of the structure. Our screening systems often need bespoke design to incorporate with doors, gates and barriers.





## Vertical Fin Screening

Zefyr's bespoke "Vertical Fin Screening" systems have been designed for the concealment of a structure whilst providing natural ventilation and solar shading. For most projects fins are wall-mounted, allowing the desired architectural profile to be achieved. Combining this with the wide range of shapes and sizes available from Zefyr, architectural fins help to reduce the effect of solar glare whilst dramatically increasing the aesthetic appeal of the building façades. The option to use a large array of materials whilst having control over fin length, and the option to integrate car park barrier systems, provides the customer with endless possibilities to complete any façade.



## Application

Screening systems are a useful option in building when faced with particular problems as they are often an affordable option with lightweight construction. Screens can be used to obscure unwanted buildings or objects to create it more aesthetically pleasing. Lower the effect of solar glare whilst allowing light in to the building. Reduce elements entering the building in harsh weather conditions whilst allowing a constant airflow in to the building preventing build up of toxic fumes in buildings like car parks. Even for a security reason to prevent unauthorised persons entering premises whilst not making it look like a prison and still maintaining security. This screening system can also have a extra safety feature of a composite crash barrier / support frame often required for multi story car parks. Bird guards and/or insect mesh can be added as another optional extra to keep out unwanted wildlife entering through the free area of the screens.

## Aesthetics

This screening system has integrated carrier systems for rapid installation, they are normally wall mounted but can be freestanding. With wide range of fin shapes (aero-x, aero-p, aero-t, delta-x, z-box, bespoke) to cover most design problems but also to offer a bespoke design for more unique requirements. The profiles of these fins can range between 100mm to 1000mm. Lengths of fins are infinite due to the invisible blade joint system that Zefyr use. The distance between each fin will vary depending on the profile size and desired visual result. A variety of versatile materials available from timbers and metals that can have wide range of finishes can be applied to help maintain high quality aesthetics.





## Horizontal Louvred Screening

The Zefyr “Horizontal Louvred Screening” can be wall mounted or free standing depending on its required purpose. The “Louvred Screening” can be an affordable screening option for any building whilst giving an impressive visual impact. They are often used for hiding undesirable objects or often for the pure purpose for aesthetics only.



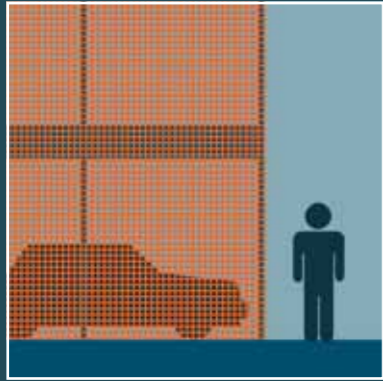
### Application

Screening systems are a useful option in building when faced with particular problems as they are often an affordable option with lightweight construction. Screens can be used to obscure unwanted buildings or objects to create it more aesthetically pleasing. Lower the effect of solar glare whilst allowing light in to the building. Reduce elements entering the building in harsh weather conditions whilst allowing a constant airflow in to the building preventing build up of toxic fumes in buildings like car parks. Even for a security reason to prevent unauthorised persons entering premises whilst not making it look like a prison and still maintaining security. This screening system can also have an extra safety feature of a composite crash barrier / support frame often required for multi story car parks. Bird guards and/or insect mesh can be added as another optional extra to keep out unwanted wildlife entering through the free area of the screens.

### Aesthetics

This screening system is supplied to site in component form for rapid site assembly and installation, they are normally wall mounted or freestanding. With wide range of blade shapes (standard, smoothflow, perforated, box, bespoke) which are often a bespoke design which means profiles for the blade can range between almost any size. Lengths of blades can vary and with the option of an infinite blade joint system that Zefyr use. The distance between each blade will vary depending on the profile size and desired visual result. A variety of versatile materials available from timbers and metals that can have wide range of finishes can be applied to help maintain high quality aesthetics.





## Open Cell Grid Screening

The majority of “Open Cell Grid Screening” systems provided by Zefyr are roof-mounted helping to visually obscure the undesired area from all viewing angles whilst still providing ventilation to machinery and roof-mounted items such as heating and ventilation plants. The flexibility in size and shape allows for all customer needs to be catered for. The lightweight aluminium structure can be finished in almost any colour and discreet fixings and flashings help to complete the overall effect.



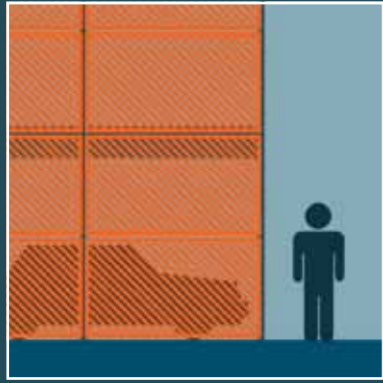
## Application

Screening systems are a useful option in building when faced with particular problems as they are often an affordable option with lightweight construction. Screens can be used to obscure unwanted buildings or objects to create it more aesthetically pleasing. Lower the effect of solar glare whilst allowing light in to the building. Reduce elements entering the building in harsh weather conditions whilst allow a constant airflow in to the building preventing build up of toxic fuels in buildings like car parks. Even for a security reason to prevent unauthorised persons from entering premises whilst not making it look like a prison and still maintaining security. As an optional extra bird guards and/or insect mesh can be added to keep out unwanted wildlife entering through the free area of the screens.

## Aesthetics

This screening system is supplied to site in component form for rapid site assembly and installation, they are normally roof mounted but can be wall mounted or freestanding. Grid pitches range from 100mm to 600mm. Grid depths range from 100mm to 300mm. This screening system can be almost any size as the joints between each unit cannot be seen thus giving a continuous effect. The grid is made from aluminium, due to lightweight construction and its wide range of finishes that can be applied to help maintain high quality aesthetics (mill finish, PPC to any RAL / bespoke colour and gloss level).





## Expanded Mesh Screening

Zefyr's "Expanded Mesh Screening" is created by a machine cutting multiple slits in a sheet of metal and then stretching the sheets to give the mesh effect. The mesh is often made from either aluminium for lightweight construction or galvanised steel for high security construction, but other material options are available. The flexible, lightweight expanded metal grid provides a strong, durable and virtually maintenance-free solution to any structure exterior. These systems are not necessarily solely for screening as they are also used as a feature surface normally enhanced by specialist lighting which can create a fascinating visual impact.



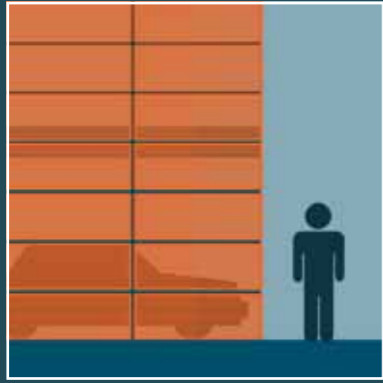
## Application

Screening systems are a useful option in building when faced with particular problems as they are often an affordable option with lightweight construction. Screens can be used to obscure unwanted buildings or objects to create it more aesthetically pleasing. Lower the effect of solar glare whilst allowing light in to the building. Reduce elements entering the building in harsh weather conditions whilst allow a constant airflow in to the building preventing build up of toxic fumes in buildings like car parks. Even for a security reason to prevent unauthorised persons from entering premises whilst not making it look like a prison but still keeping it secure. As an optional extra bird guards and/or insect mesh can be added to keep out unwanted wildlife entering through the free area of the screens.

## Aesthetics

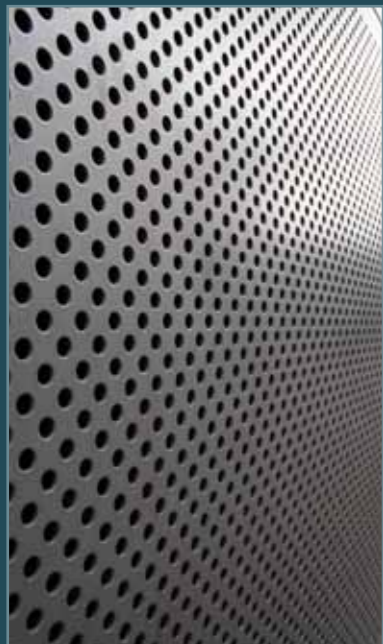
This screening system supplied to site in modular form for rapid site assembly and installation, they are normally wall mounted or freestanding. Apertures can range from 2mm to 400mm. They can either be continuous or modular systems in sections up to 4000mm by 2500mm. This system has a range of panel depths to give weather protection and solar shading. The mesh can be made from either expanded aluminium, expanded steel or expanded stainless steel all with an extensive range of dimensions and metal thicknesses. A wide range of finishes that can be applied to help maintain high quality aesthetics (mill finish, PPC to any RAL / bespoke colour and gloss level).





## Perforated Panel Screening

Zefyr's "Perforated Panel Screening" systems are normally sheets of metal which have rows perforations often circular but the perforations can be any shape, any size in any pattern. The fixings are design to be concealed and frames are available as an option. This is a secure screening system with a highly aerodynamic performance due to their large free area. Zefyr's "Perforated Panels" are perfect for any building's façade, using a modular system, which makes it easy to integrate into most structures.



## Application

Screening systems are a useful option in building when faced with particular problems as they are often an affordable option with lightweight construction. Screens can be used to obscure unwanted buildings or objects to create it more aesthetically pleasing. Lower the effect of solar glare whilst allowing light in to the building. Reduce elements entering the building in harsh weather conditions whilst allow a constant airflow in to the building preventing build up of toxic fumes in buildings such as car parks. Even for a security reason to prevent unauthorised persons from entering premises whilst not making it look like a prison but still keeping it secure. As an optional extra bird guards and/or insect mesh can be added to keep out unwanted wildlife entering through the free area of the screens.

## Aesthetics

This screening system is supplied to site in component form for rapid site assembly and installation, they are normally wall mounted or freestanding. They are design in a modular systems in sections up to 3000mm by 1500mm. Perforation in the panels can be any shape, size and spacing of holes to suit application. A frame is available as an option to surround each module and the fixings are design to be concealed. This system is made from aluminium for lightweight construction with a wide range of finishing that can be applied to help maintain high quality aesthetics (mill finish, PPC to any RAL / bespoke colour and gloss level).





## Living Wall Screening

Zefyr's "Living Roof Screening" systems are literally plants growing on the roof but these special vegetation give you a choice of coloursto choose from and even lengths you want them to grow too. This system is a great green options due to where it is positioned as it also has insulation properties and helps noise reduction. Through this system water can be collected and used for grey/waste water. They also protect the building from the environment and are low maintenance, durable and long lasting.



## Application

The "Living Roof" systems are a useful option in building when faced with specific performance targets for a build. These systems protect the building from the environment with out having the effect of aging or weathering. These "Living Roofs" are surprisingly low maintenance but also very durable which makes them extremely long lasting. As it is positioned on the roof it has great heat insulation which be tailored for each specific project but this also makes it good at energy saving as your use less energy controlling the temperature of the building thus making it a lot better for the environment. Due to this systems design it has good noise reduction capabilities which can be further changed for every jobs requirements. They can also be used as a rain filtration system for water which can then be used for grey / waste water in the building help cutting bills and also making the building more environmentally friendly.

## Aesthetics

The "Living Roofs" have no size limitations, they are modular fabrications for rapid installation. They can be planted with a variety of vegetation, which has multiple colour choices some even change with the season others stay the same all year rounds. The length can also be controlled depending on what has been planed, choices of short to long length vegetation is available. These systems are offer used to conceal buildings to blend in with the country side. Also used in the cities for esthetical purpose either making a building differ from anther or just because its more visually pleasing.





## Living Roof Screening

Zefyr “Living Walls” are walls of vegetation growing on them. There is a variety of choice of vegetation which can dramatically improve the appearance of a building. The “Living Walls” are another great green option as they can improve a buildings performance in heat insulation, noise reduction and energy saving. They also protect the building from the environment and are low maintenance, durable and long lasting.

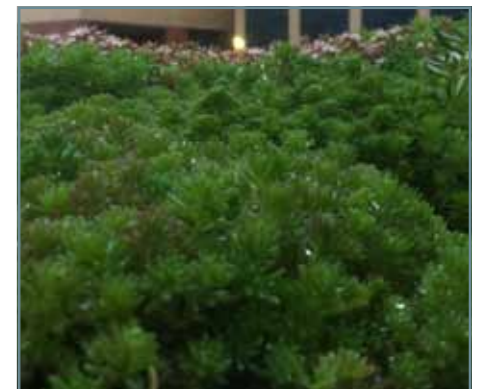


## Application

The “Living Wall” systems are a useful option in building when faced with specific performance targets for a build. These systems protect the building from the environment without having the effect of aging or weathering. These “Living Walls” are surprisingly low maintenance but also very durable which makes them extremely long lasting. As it is positioned on the roof it has great heat insulation which can be tailored for each specific project but this also makes it good at energy saving as less energy is used in controlling the temperature of the building thus making it a lot better for the environment. Due to this system’s design it has good noise reduction capabilities which can be further changed for the requirements of each project. They can also be used as a rain filtration system for water which can then be used for grey / waste water in the building help cutting bills and also making the building more environmentally friendly.

## Aesthetics

The “Living Walls” have no size limitations, they are modular fabrications for rapid installation. They can be planted with a variety of vegetation, which have multiple colour choices - some even change with the season and others stay the same all year round. The length can also be controlled depending on what has been planted, as the range of short to long length vegetation is available. The result is very aesthetically pleasing as it can make a building look a more soothing work place. Another use for its aesthetical purpose can be to make the building differ from another.



## Automatic Gates

Zefyr incorporate automatic gates in to their architectural screening systems normally meant for apartment car parks. They are designed to continue the screening effect so the doors are not visible at first glance and change the aesthetic of the building as little as possible, which will aid the security of the building as the entrance will not be obvious to passers by.



## Doors

Doors are often an integral part of a screening system to allow access and exit from the enclosed area. Zefyr designs access doors into systems to complete the visual. Dependant on design criteria, Zefyr are sometimes required to design the doors to fit with the aesthetics, but stand apart from the screening, necessary for safety reasons such as a fire escape.



## Free Standing

Zefyr's screening systems are sometimes be require to be freestanding, either to carry on screening effects, to hide unwanted visuals or for safety purposes. These systems are preferable over fencing as they are more visually pleasing and stops the enclosure resembling a prison.



## Barrier Systems

Zefyr's screening systems are often used in multi story car park projects, which means that barrier systems have to be incorporated for safety reasons. Barrier systems can be designed for vehicles, pedestrians or both depending on the specific requirements.



## Sliding Screening

Zefyr have designed sliding screens into their screening systems to make larger entrances or access points, enabling small vehicles, crates and other large objects to enter a building. These systems are designed to fix in sections of screening and carry on the desired effect making the access point unobvious to passers by.



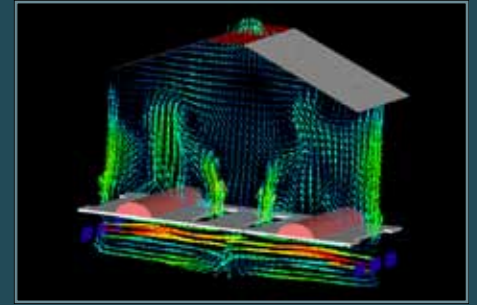
## 2D/3D Modelling

Zefyr Consultants Ltd. offer technical support for product and system design via two-dimensional and three-dimensional modelling. Our digital models are completed using state-of- the-art computer software by fully-trained professionals and are presented intricately or simplistically depending on client discretion.



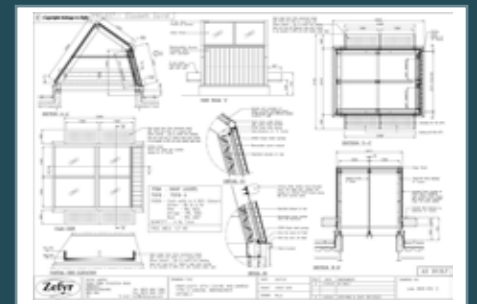
## Computational Fluid Dynamics

Zefyr Consultants Ltd. offer a comprehensive range of Computational Fluid Dynamics services such as Air Flow Modeling for industries including Power Stations, Metal Works, Glass Works, Geothermal Energy, Biofuel Production, Cement Production, Combined Heat and Power, Pharmaceutical and Chemical Manufacturers, Incinerators and Crematoriums.



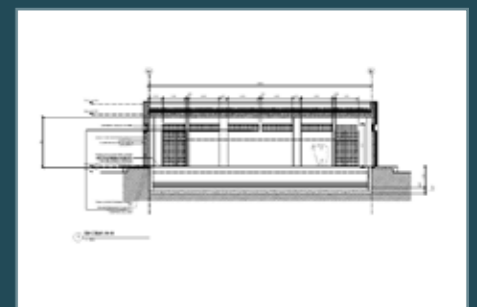
## Product Design

Zefyr Consultants Ltd. offer a bespoke product design service to innovatively solve your unique, architectural problems. Our imaginative building solutions have ranged from: contemporary perforated screening to curved balconies; specialised solar shading to decorative façades; continuous louvers to unconventional access hatches; and high heat ventilation to LED illuminated hand-rails.



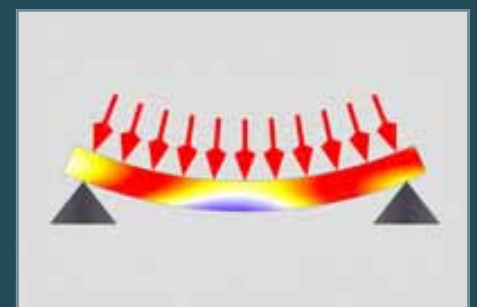
## System Design

Zefyr Consultants Ltd. provide full architectural designs for construction companies regarding projections for building systems such as large-scale ventilation. This technical support is administered by fully qualified engineers to ensure the very best efficiency and aesthetical quality of the proposed system.



## Structural Analysis

Zefyr Consultants Ltd. offer a comprehensive structural analysis of existing and proposed buildings including a detailed Finite Element Analysis of materials. This service can be crucial for evaluating the stability of complex architectural structures and the suitability of design and building components for specific building quandaries.



## Solar Shading

“Solar Shading”, also known as “Brise Soleil”, prevents direct sun glare, reduces over-heating (makes a building more energy efficient) and solar glare (increases visual comfort, often improving worker satisfaction and productivity). Zefyr systems always provide an aesthetically pleasing addition to the building.



## Natural Ventilators

Zefyr’s “Natural Ventilator” systems are world-leading high-performance extract ventilators that allow for the easy escape of hot, stale, smoky air. These systems are used in extreme, indoor working conditions in order to create as comfortable an environment. They also have environmental benefits and are a cheaper alternative to air-conditioning plants.



## Weather Louvres

Zefyr’s “Weather Louvre” ventilation products are systems made from groups of either fixed or operable blades, mounted in a frame. The purpose of a louvre is to let in the required light and air whilst keeping out unwanted elements such as water, dirt, direct sunshine, noise, and debris. There are two types of “Weather Louvres” either “Architectural” or “Industrial”.



## Access Hatches

Zefyr’s range of “Access Hatches” facilitates the safe and convenient movement of equipment or persons to and from a building. All our “Access Hatches” come with a hinged, self-locking safety grid with extended handholds as standard, and conform to single-man operating lifting.



## Architectural Metalwork

Zefyr bespoke “Architectural Metalwork” is a custom-made piece of metalwork that embodies the architect’s intrinsic vision so that they not only act as a necessary, functional component of the building but also become a distinctive and aesthetically ergonomic feature to project the structure’s exclusivity and originality.



## Innovative Building Solutions

The Zefyr Group have more than 95 years experience in high quality ventilation engineering solutions. Our unique range of products and services are available worldwide through the ever-expanding international network of Zefyr’s partners, licensed manufacturers and distributors. If you wish to see any of our past projects we have Case Studies which can be downloaded from our website.

Our products have been passionately supplied and installed transnationally - the knowledge and experience gained in all conditions has been used to continually develop our range by utilising state-of-the-art technology and systems.

Individual customer needs can be incorporated into the design of complete installations, tailoring the solution, and following it through to completion. This ensures customers receive a complete ‘concept to completion’ service, all the while meeting our sustainable design philosophy. All our work has been tested and meets all the specifications needed to provide the best cost and quality possible.

Our wide range of products can be found on our website and if you require more specific information regarding products we have Data Sheets that can also be downloaded. Please feel free to contact us with any questions if you wish to receive information about a bespoke project.



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