



Next generation natural ventilation system



## WINDCATCHER® X-Air next generation natural ventilation system features

- Computer generated aerodynamic design delivers greater ventilation rate
- ACTIVLOUVRE system provides enhanced ventilation control and ultimate weather protection
- Integral solar powered architectural lighting system
- Composite insulated upstand allows rapid installation and low U-value
- Reduced lead time
- 3 colours are available
- Made from fully recyclable materials

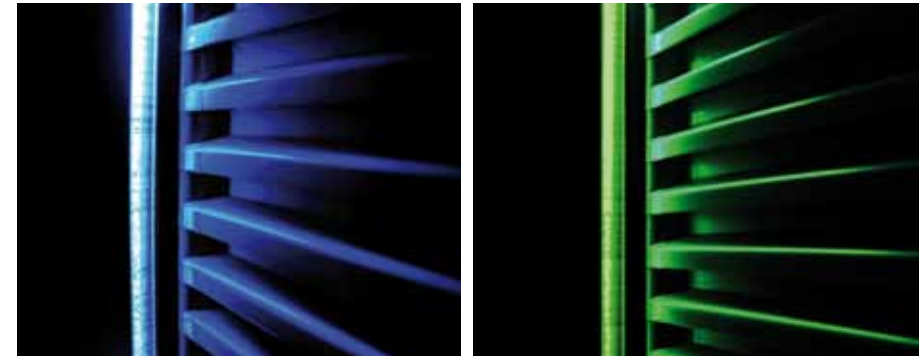
The Monodraught WINDCATCHER X-Air is the next generation of natural ventilation that follows in the footsteps of the successful WINDCATCHER classic systems that have proved to be so popular



## ACTIVLOUVRE® modulating aerofoil louvre technology Patent No. 1011356.1/European patent pending

The ACTIVLOUVRE technology provides ventilation control at roof level and prevents weather ingress into the WINDCATCHER. The system comprises of an external set of static louvres and an internal set of active louvres. The active louvres can be raised and lowered to vary the free area of the opening according to the control strategy. The greatest air flow rates through the louvres are achieved when they are fully open, but the ACTIVLOUVRE system is able to modulate their position to increase the resistance of the louvre, or they can be fully shut to prevent the ingress of snow, alleviating the susceptibility of an open louvre system.

## Architectural Solar Powered Lighting System Patent No.1012112.7



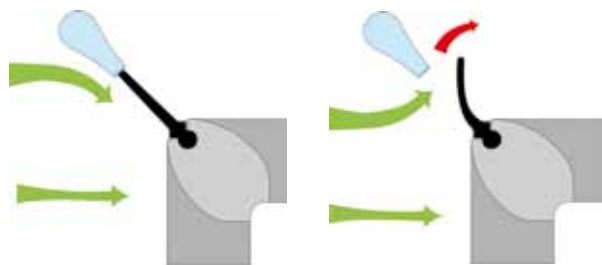
The WINDCATCHER X-Air incorporates an architectural lighting system powered by a 10Watt photovoltaic panel mounted within the cap of the system. A solar panel collects solar energy throughout the day charging an internal Lithium ION battery, even during overcast skies. The system automatically illuminates at low light providing soft architectural lighting without the need for user input.



## External Air Catchment Fins

Patent No. 1012116.8

The External Air Catchment Fins are located on each corner of the WINDCATCHER X-Air and comprises of a tear drop profile light tube and a pressure release fin. At low wind speeds, the fins are used to increase the area across the face of the system. This increases the positive and negative pressure on the windward and leeward faces respectively, and increases the total rate of air flow through the system. When wind speed is high the rubber fin flexes, helping to relieve excessive wind loading.



Low wind speed

High wind speed  
5m/s and above

## Aerofoil Louvre

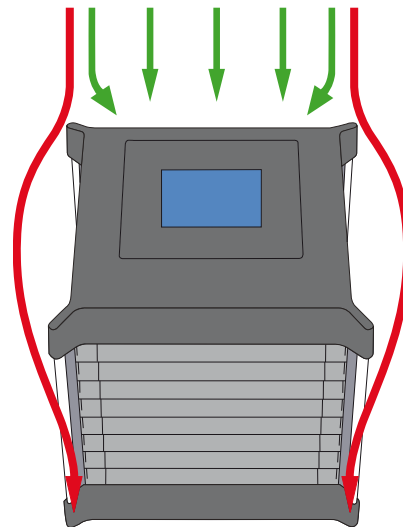
Patent No.1012114.3

The ACTIVLOUVRE technology is designed to provide ventilation control, but also to be aerodynamically efficient. By reducing losses through the louvred section the level of ventilation per system is increased. Compared with a standard louvre, the performance is significantly greater. The aerodynamic profile was developed using computational fluid dynamic (CFD) techniques and wind tunnel tests in association with the University of Reading and University of Nottingham.

## Swept Divider

Patent No.1012115.0

Monodraught WINDCATCHER systems are divided into four separate quadrants, but the WINDCATCHER X-Air system incorporates turning vanes to gently direct air flow while avoiding flow separation and increased frictional losses.






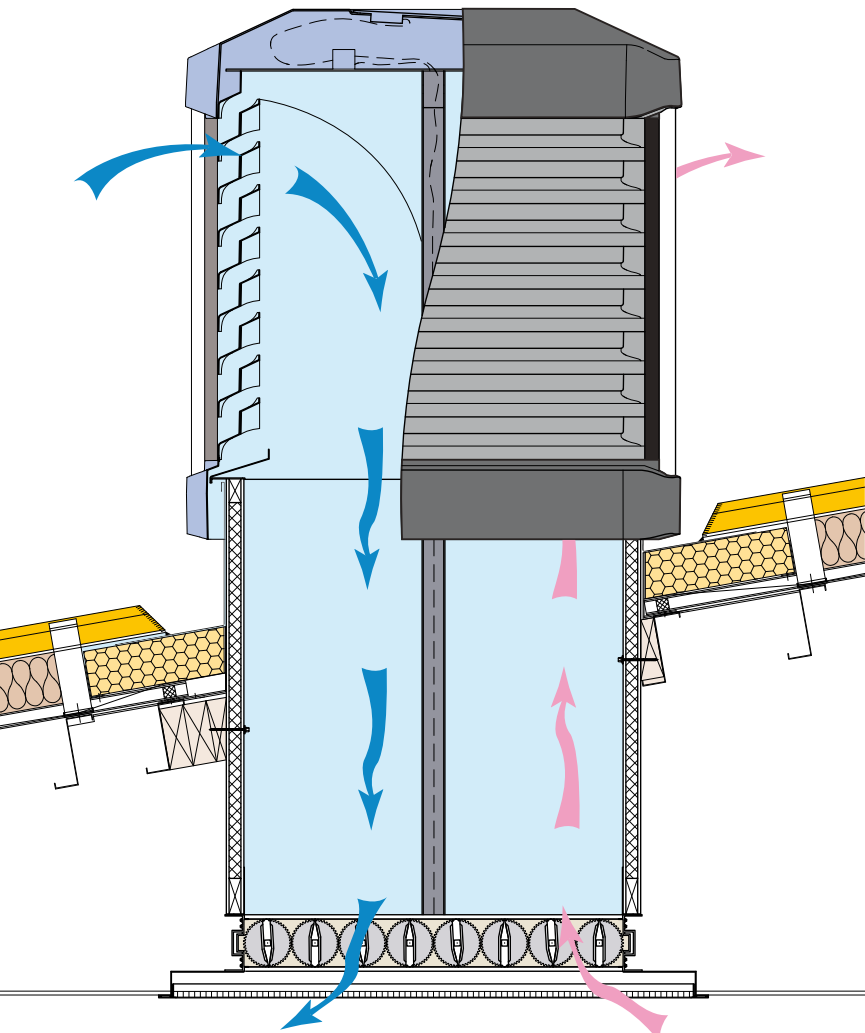
## Sizes

WINDCATCHER X-Air systems are available in a range of sizes. Monodraught provide detailed calculations to size the WINDCATCHER X-Air systems for any particular application.

## Colours

The WINDCATCHER X-Air components are available in 3 colours with dusty grey as standard.

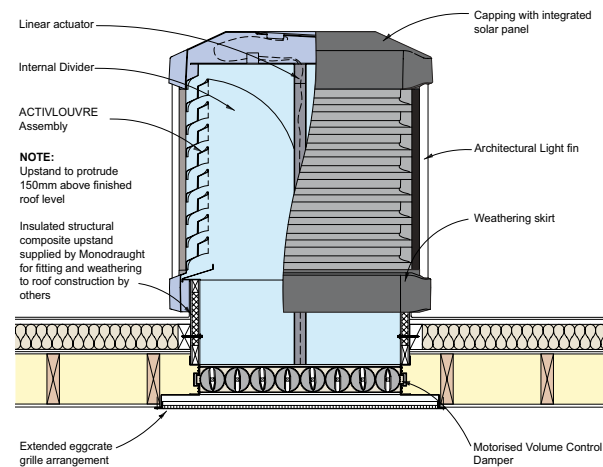
-  Dusty Grey (RAL 7037)
-  Agate Grey (RAL 7038)
-  Cream (RAL 9001)



Roof pitch of up to 35° in order to install WINDCATCHER X-AIR system

## Composite Upstand

Monodraught have developed an insulated upstand arrangement to be used with the WINDCATCHER X-Air. The upstand is a multi-layer construction allowing for high levels of insulation, and also ensures every system maintains an air tight seal and reduces install times to a minimum. The WINDCATCHER X-Air can be installed onto flat roofs, and roofs with a pitch of up to 35°.



## Specification

**Manufacturer:** Monodraught Ltd, Halifax House, Cressex Business Park, High Wycombe, Bucks, HP12 3SE.

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**Type:** Monodraught WINDCATCHER X-Air system

**Louvres:** ACTIVLOUVRE system incorporating mechanical, top level volume flow control and weather ingress protection.

**Internal Airways:** Turning vanes providing reduced turbulence of inlet and extract flows.

**Kerb:** Insulated composite upstand provided by Monodraught to suit roof construction (fitted and weathered to roof construction by others prior to Monodraught attendance).

**Volume Control Dampers:** 24 Volt modulating insulated volume control dampers with high specification air shut off.

**Ceiling Grilles:** White powder coated eggcrate grille or linear grilles.

**CE Marking:** WINDCATCHER X-AIR SYSTEM is classified within the following EU Directive:

**Construction Products Directive 89/106/EEC EMC Directive 2004/108/EC**

and further conforms with the following EU Harmonized Standard: EN 13030: 2001; EN 61000-6-1: 2007; EN 61000-6-3: 2007+A1:2011.

**NBS Specification:** Full NBS Specification is available to download on our website: [www.monodraught.com](http://www.monodraught.com)

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