

Monodraught



*Putting the wind and sun to work
- its only natural*



Windcatcher
Natural Ventilation
Systems



SunCatcher
Natural Ventilation
& Daylight Systems



SunPipe
Natural Daylight where
windows cannot reach



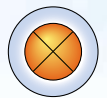
Sola-boost
Solar Powered
Ventilation



Sola-vent
3-in 1
Bathroom Unit



ABS Systems
Low cost range of
ABS alternatives



Heat Harvester
Low Powered System
for recovering heat

The Company

Monodraught Limited was incorporated in May 2007 into the Danish company of VKR Holding, which owns brands such as VELUX roof windows, VELFAC and Rationel vertical windows, as well as WindowMaster and European thermal solar companies

Professor Terry Payne, managing director, founded Monodraught in 1974, and since then, the company has specialised in the development of innovative and successful natural ventilation and natural daylight systems.

A significant feature of the Monodraught product range continues to be the high level of architectural and design empathy achieved through design flexibility. This enables designs to be visually appealing whilst achieving an efficient and practical contribution to the harnessing of our natural resources.

Now part of VKR Holding, Monodraught will continue to develop and promote the application of solar driven and wind driven effective natural and low energy products for the ultimate benefit of buildings for the future.

Unlimited Design Potential

A significant feature of the Monodraught product range continues to be the high level of architectural and design empathy achieved through design flexibility. This enables designs to be visually appealing whilst achieving an efficient and practical contribution to the harnessing of our natural resources. There is virtually no limit to the design potential of Monodraught systems, which are manufactured to a standard range but bespoke features can always be incorporated. Systems are manufactured to any BS or RAL colour.

Maintenance

A particular feature of Monodraught systems is the emphasis on low maintenance. Manufactured in GRP and ABS, all Monodraught systems are covered by a 10-year guarantee. Dampers and controls fitted into the systems will be covered by the normal manufacturer's warranty.

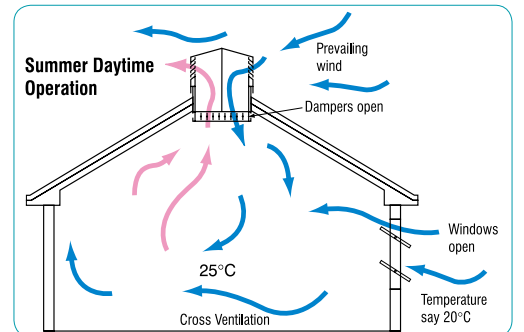
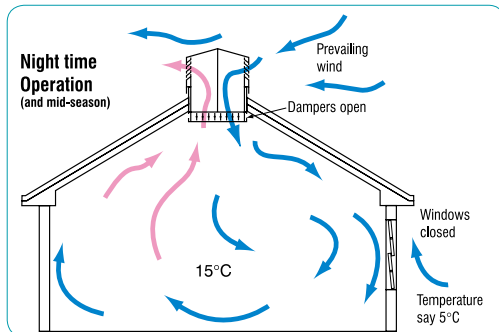


Windcatcher

Natural Ventilation Systems

The Monodraught Windcatcher system has proved to be the most effective method of providing natural ventilation to any commercial building, by encapsulating the prevailing wind from any direction. Clean, fresh air, relatively free from contamination or traffic pollution, is entrained at roof level and is carried down to the rooms below through a controlled damper arrangement. The ventilation effect is similar to displacement ventilation. Night time cooling is achieved without compromising the security of the building. Warm stale air is exhausted by the passive stack quadrants of the Monodraught system and replaced by cool fresh air taken in from roof level.

This Windcatcher arrangement, pioneered by Monodraught, is now widely recognised as the most reliable and effective means of harnessing the wind's potential as a renewable energy source. Initial capital costs are often less than half the cost of air conditioning and there are no running or energy costs.



SunCatcher

Natural Ventilation and Natural Daylight in a single installation

The Monodraught SunCatcher has proved to be highly popular as a combination of natural daylight and natural ventilation in one combined system.

The SunCatcher is the ideal alternative to rooflights and skylights. It is also an ideal method for providing additional natural daylight and ventilation to internal rooms or spaces, poorly served by other external glazing.

The SunPipe system, which is combined with the Monodraught Windcatcher, to provide the SunCatcher system. This maximises the concept of renewable energy by not only reflecting and intensifying sunlight and

normal daylight down through the mirror-finished internal tube but the SunCatcher also provides all the ventilation requirements on the same basis of the Windcatcher system. In the case of the SunCatcher, four dampers are incorporated at the base of the system to exactly control the airflow.

Monodraught SunCatchers are manufactured from 400mm to 1500mm in both circular and square format. Bespoke shapes and special SunCatchers can be designed to meet the clients' requirements, but each SunCatcher is carefully sized to meet both the ventilation and daylighting requirements of the room or space that it serves.

Solar Powered Products

Monodraught have developed a range of eco-friendly and carbon neutral products to combat the effect of global warming and climate change using energy-free systems.

Sola-boost

Energy free powered ventilation

The ABS Sola-boost is an extension of the proven Monodraught Windcatcher system designed to provide additional solar powered ventilation, on hot, sunny days, maintaining zero running costs but enhancing the natural ventilation rate by more than 50%.



Hazeley School, Milton Keynes



ABS Sola-boost

Energy free powered ventilation

The ABS version works on the same principle but offers a lower cost unit. Only one 550mm diameter system is available but a wide choice of colours can be offered to the Architect.



Sola-vent

Solar powered ventilation and natural daylight

The 3 in 1 bathroom unit with solar powered extract fan operated by an internal presence detector. The solar panel at roof level powers the fan or charges the batteries for night-time use.



Two sizes and two versions are available; the Sola-vent 230, which utilises a 230mm diameter SunPipe and an extract fan based on 15 l/s; and a larger Sola-vent 300 system, which incorporates a 300mm diameter SunPipe with a 150mm diameter fan, which produces an extract rate of 30 - 60 l/s



Two designs of ceiling fascia are available, the Sirroco and Mistral, and the Sola-vent system won the "Best Interior Product of the Show" Award at the International Interbuild Exhibition in 2006.

Sola-extract

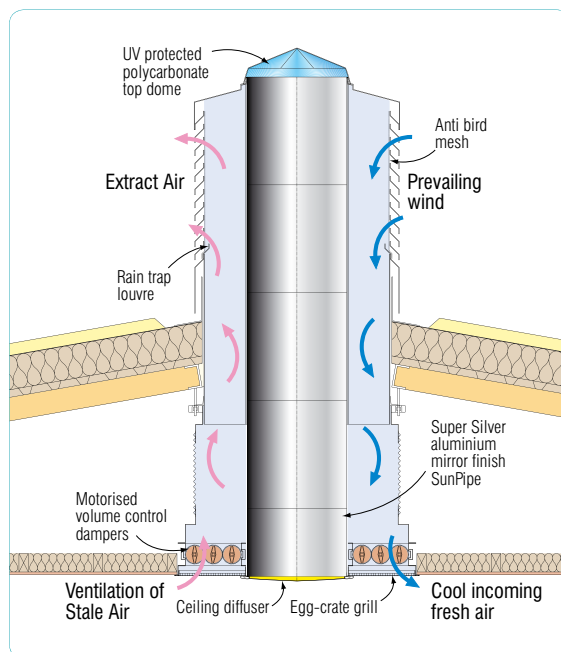
Used in connection with the products from our affiliated company, WindowMaster, Sola-extract is still a solar powered system but works in the extract mode only. WindowMaster controls provide programmable opening of windows to achieve cross ventilation and Sola-extract provides the solar powered extract path for this cross ventilation, using solar powered extract under sunny conditions but otherwise, by natural means for other times of the operation.

PowerTrack™

This system enhances the solar powered energy by boosting the solar power by 250% under full sun conditions. The PowerTrack™ control system is an integral part, so as to optimise performance of this natural ventilation arrangement. Although the Sola-boost design operates at full power under sunny conditions, in all other circumstances, the natural ventilation arrangement continues uninterrupted.



St Paul's RC School, Burgess Hill



Monovent SunCatcher

Monovent versatility for smaller installations

Whereas the Monodraught GRP SunCatcher is aimed at larger scale applications, it is recognised that there is an increasing demand for smaller installations in Homes, Shops, Offices, Doctor' Surgeries, etc. The Monovent SunCatcher provides permanent background trickle ventilation using wind power and the thermal rise of warm air as the driving force.





Natural daylight where windows can't reach

This system maximises the concept of renewable energy by reflecting and intensifying sunlight and even normal daylight, down through a highly reflective silverised mirror-finish aluminium tube.

A clear UV stabilised polycarbonate top dome seals the light pipe against the ingress of dust and a clear stipple finish polycarbonate diffuser at ceiling level evenly spreads light into the room or space below. The SunPipe system is highly effective in both sunny and overcast conditions and even when it is raining.

There is virtually no limit to the length of SunPipe or the number of bends that can be used and the SunPipe carries a 10 year guarantee.

There is virtually no limit to the length of SunPipe or number of bends that can be used. Ten sizes of SunPipe are available from 230mm to 1500mm diameter. Bespoke systems can be provided and the flashing arrangement is normally injection moulded ABS or GRP.

A wide range of interior fittings and applications, including anti-vandal and security fittings for Prisons and Police Stations and the like. We can also provide high performance systems with acoustic diffusers, fire choke or FireGuard collars, and systems for low temperature applications.

Design Services

Monodraught provide a complete design service for all Monodraught systems with full drawings, including all builders work requirements, normally supplied within 48 hours of the customer's instructions. A full installation service is also available throughout the UK at the present time but with future plans to make this service available on a global basis.



Daimler-Chrysler Offices, Tongwell, Milton Keynes



Corridor at the Brain Rehabilitation Centre, Birmingham, lit entirely by SunPipes.

Separate brochures for SunPipe, Windcatcher, Vertical Balanced Flue, Sola-boost and Sola-vent systems are available from Monodraught.



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