

# The Swiss Re building

## *A new concept in building design*

The Swiss Re UK headquarters, sometimes known as "The Gherkin" or "30 St Mary Axe", is the new landmark in the centre of London showing the way forward in automated environmental building controls. The intelligent external sensors and dedicated software provide an ideal working environment whilst saving valuable energy resources. This combination really does show that there are intelligent, economical and functional systems that can be realised with the right design, creativity and partners.

Biral was first consulted to advise on the type and placement for the external environmental sensors and has subsequently supplied a range of sensors for measuring wind, precipitation, temperature, humidity and brightness.

The final set-up includes six ultrasonic anemometers for three dimensional wind speed and direction monitoring and evaluation of the forces on the building. Furthermore these sensors act as ventilation controls with a 60 degree separation spacing around the complete circumference of the upper facade. There are five equally spaced precipitation monitors to automate the control of window and ventilation openings. In addition, a multiple parameter sensor positioned at the apex provides control values for precipitation event monitoring, brightness, temperature and relative humidity readings. Finally four pyranometers are mounted on each main compass point to monitor the sunshine intensity and adjust ventilation and temperature settings accordingly.

All of the equipment has been customised to blend into the unique architectural scheme of this fantastic design. Special wind tunnel calibrations have been carried out to ensure the best possible accuracy of the sensors and quality has been paramount throughout. The data outputs from the sensors are combined with data from other installed equipment and, by means of intelligent software and sophisticated computer monitoring, the building environmental controls are automated with individual adjustment available if needed.

The structure is now finished and has already become a well known feature on London's skyline. Sir Norman Foster was the design force behind this exciting building and the following websites contain further information on the

structure as well as nearly every other aspect of the environmental construction and purpose of this new gem in the city.

[www.swissre.com/londonnewbuilding](http://www.swissre.com/londonnewbuilding)

[www.fosterandpartners.com/internetsite/html/Project.asp?JobNo=1004#](http://www.fosterandpartners.com/internetsite/html/Project.asp?JobNo=1004#)

For further information on automated building environmental controls please contact the Biral Met Team via email: [met@biral.com](mailto:met@biral.com) or tel: +44 (0)1275 847 787



*The Swiss Re Building, London, UK*

The Swiss Re building has recently been awarded the RIBA Stirling Prize 2004 and has been dubbed "Building of the Year"

see [www.architecture.com/go/Architecture/Also/Awards\\_3994.html](http://www.architecture.com/go/Architecture/Also/Awards_3994.html)