WINDCATCHER X-AIR: Vancia School

Natural Ventilation

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Building Name: Vancia School
City: Vancia-Crepieux, Lyon, Rhone

Country: France

Building Type: Primary School Extension

Market Sector: Education
Architect: Tekhne Architectes
Consulting Engineer: TRIBU, Lyon

Installation Date: Completed August 2012





Monodraught were asked to provide a natural ventilation solution for a three classroom extension to the existing Vancia-Crepieux School near Lyon. Natural ventilation was to be utilized in conjunction with several other environmental initiatives such as timber cladding, rain water harvesting and high performance glazing with solar shading. Monodraught's WINDCATCHER® X-Air natural ventilation systems were chosen as a means of providing fresh air and heat dissipation from roof level into the classrooms without the use of mechanical fans.

Natural ventilation has traditionally been used in France to achieve summertime thermal comfort through the use of opening windows. However, the objectives of the Consultants in working with natural ventilation was to provide the appropriate ventilation in all seasons from the WINDCATCHER systems. This has been successfully achieved through the integration of Monodraught's fully automatic iNVent control strategy built around external climatic conditions, thermal comfort and air quality.

One WINDCATCHER X-Air 170 system was specified to each of the classroom following dynamic thermal modelling that was used to provide a detailed climatic based analysis of the predicted ventilation performance. Incorporated within the installed iNVent control system is data logging functionality which is being used to provide feedback to the client on the internal air quality in the new classrooms.

Commenting on the installation, Olivier Zanni of Tribu, Lyon "The existing school was naturally ventilated but only by manual windows opening. The WINDCATCHER X-Air system was chosen for the simplicity of its implementation during the construction, its good control system and low maintenance. The feedback from the school is very good regarding ease of use and air quality. "

Key benefits

- Energy performance certificate
- Ease of installation
- Dynamic Thermal Modelling provided
- Fully automatic control systems
- Low maintenance, long life span

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