

# High quality ventilation delivered at Kent School

- **Project:** Trinity Free School
- **Sector:** Education
- **Contacts:**
  - » **Main Contractor:** [Wilmott Dixon](#)
  - » **Architect:** [Bond Bryan Architects](#)
  - » **Mechanical Engineer:** [Jones King Partnership](#)
- **Location:** Sevenoaks, Kent
- **Feature Products installed:**
  - » 45 N° Monodraught Hybrid Thermal Mixing ventilation systems (HTM)
  - » 3 N° Windcatcher X-Air 200 natural ventilation systems (Sports Hall)
  - » 6 N° Windcatcher X-Air 170 natural ventilation systems (Activity studio, main hall and dining room)
  - » 3 N° Monodraught iNVent Control panel
  - » 36 N° Monodraught VENTS AIR Façade ventilation system



## Case Study

Trinity Free School



Work was completed on [Trinity School](#) in Sevenoaks in time for the start of the school year in September 2016. The school has been built in line with EFA standards and regulations. Ventilation was one of the key considerations in building the school and over 40 Monodraught Hybrid ventilation systems have been installed across the classrooms. In addition there are 6 Monodraught Windcatchers in operation. These are a natural ventilation solution and are ideal for the Sports Hall, Activity studios, Dining Room and Main Hall.



The primary reason for installing a hybrid solution was to ensure that classrooms are kept fresh with low CO<sub>2</sub> and reduced distracting fan noise compared with a mechanical system. Monodraught HTM was designed with the Facilities Output Specifications (FOS) in mind. The HTM FS systems are designed to be installed above a suspended ceiling or within a ceiling raft and to work in conjunction with natural ventilation provided by manual or automatic windows.

HTM FS is constructed from composite panels providing high levels of acoustic attenuation and along with its low noise fan it meets [BB93](#) and priority school building programme (PSBP) facility output specification requirements. It is a cost-effective ventilation solution with low ongoing cost and maintenance and minimum impact on class acoustics as the fan tends to run when the classroom is unoccupied.



## Case Study

Trinity Free School



The Windcatcher is a virtually energy free Natural Ventilation system encompassing the benefits of both top-down and passive stack ventilation. The system consists of four external louvre banks, to stop the ingress of precipitation, which are protected internally by Activelouvres. The simple, but effective design of the system provides fresh air during the daytime as well as night-time cooling. Our Windcatcher systems come with a ten year [no-leak guarantee](#) and offer a virtually free ventilation solution.

This report identifies key parameters for performance and assess them against industry specifications for compliance.

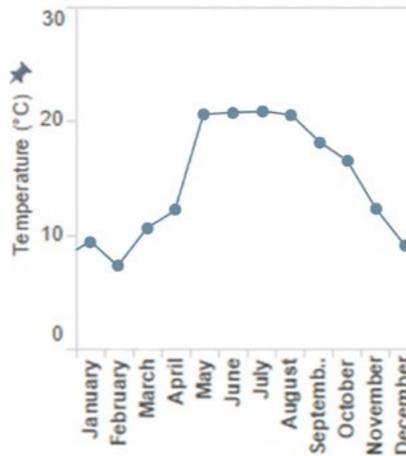
The HTM has a number of sensors internally and a room sensor and air quality sensor. This information is recorded every minute.

Recent data logging demonstrates low power consumption. Room air quality or CO<sub>2</sub> levels are within guidelines, ensuring that staff and students can enjoy a comfortable fresh environment throughout the year.

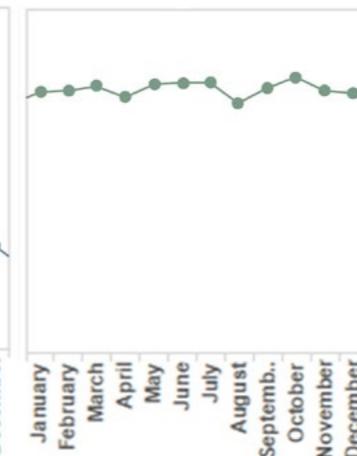
To find out more about how our systems could support your specific application, please get in touch with our [Technical Consultants](#) to discuss your needs.



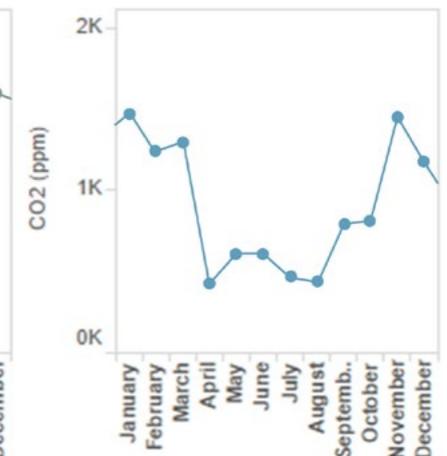
### External Temperature



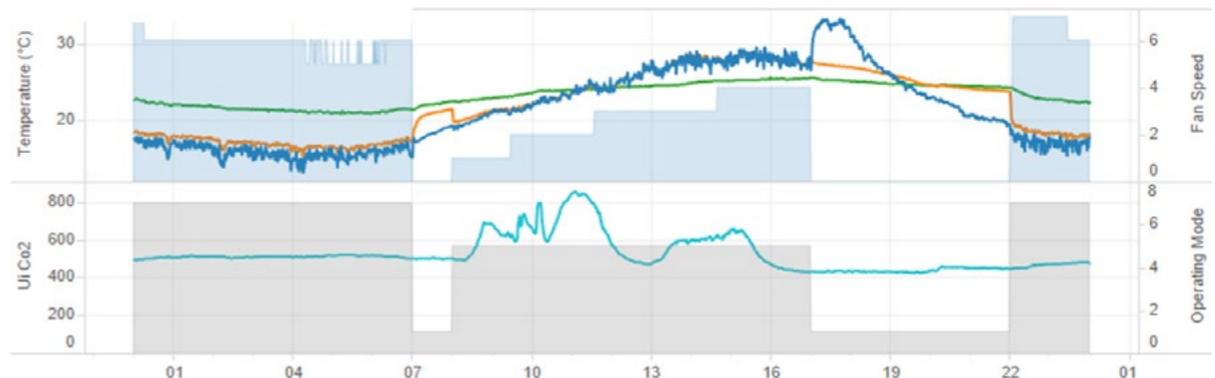
### Room Temperature



### CO<sub>2</sub> Levels



### Graphical Overview



### Room Air Quality

