

Case Study | New Charter Academy

Collaboration is The Key to Success ... naturally!



The start of the new term in September 2011 celebrated the completion of the £40m development of the New Charter Academy, Ashton under Lyne.

The Academy, designed by Faulkner Browns Architects, provides a small school environment with state-of-the-art facilities and first class learning resources available for use not only by the students but also by the local community and other nearby schools. The building itself is designed to create a healthier environment in which to learn by incorporating an energy efficient natural ventilation system in all classrooms with combined smoke extract in communal areas.

Working closely with Inspired Spaces, Emcor and Solaglas Contracting, Dyer Environmental Controls provided controlled automation to windows, roof vents and double glazed louvres to provide day to day natural ventilation, but which will also provide smoke extraction in the event of fire.

To ensure that adequate smoke ventilation was provided, there was a specific aerodynamic free area requirement. By working closely with Solaglas Contracting, Dyer was able to value engineer the design and offer cost effective alternative solutions including roof vents and additional louvres, certified to EN12101-2, to achieve the required free areas. Working closely with the BMS specialist Emcor, ensured seamless operation between the Building Management System and Dyer's automated window solutions.

Dyer's GVL and RZN control panels take a 0-10v signal from the BMS and integrated fire alarm system to operate the windows and vents, ensuring an effective and efficient ventilation strategy that complements the building's other functions.



Location:

Ashton Under Lyne, Greater Manchester

Products used:

24v chain drives
24 rack and pinion drives
Specialist louvre drives

Dyer RZN smoke control panels also provide 72 hour battery back-up so should there be a mains failure the smoke ventilation system will still be operational.

24v chain drives are installed on the windows, and 24v rack and pinion drives are installed on the roof vents. Specialist louvre drives, again 24v, are installed on the glazed louvres. Due to the size of the opening vents, 2no drives had to be used on each opening. The drives are programmed with BS Y+ technology which allows the synchronous operation of these drives to maintain the integrity of the window as it opens and closes.

Dyer Environmental Controls' expertise in whole building ventilation solutions has enabled this new academy to provide the safe, healthy learning environment that they had hoped for.

