



Project name

Market Sector - Education

Geographic Sector - Sheffield

Project details

Sheffield University has undergone a series of refurbishments including a £5million renovation project to transform the Universities Student Union. The Union employs over 900 people and offers a vast scope of facilities and activities, this redevelopment will refresh the building and help retain its reputation as being one of the best in the country.

GDL designed and supplied an energy efficient natural ventilation solution for the student union area that harnesses wind power to naturally cool the building.

Project overview

GDL Air Systems supplied a natural ventilation solution for the renewed student union assembly area. Various roof mounted penthouse louvers located within a walk-way area were used to ventilate the space as opposed to a mechanical arrangement. We also supplied various Ceiling Diffusers and Eggcrate Grilles within the Union.

Harnessing natural wind power and temperature buoyancy to ventilate buildings significantly reduces energy consumption that would have been used to operate a more traditional mechanical arrangement.

During the day in the summer months in particular there is a build up of solar gain and human heat gain within all building types, natural ventilation penthouse turrets allow a fresh supply of air throughout the night to lower the internal temperature of the building structure for the next morning providing a fresh feel for occupants with 100% security as there are no open windows.



Sheffield University Penthouse Turrets

Benefits of using GDL Products to the project

- Natural cooling eliminates the need for mechanical air conditioning, which incurs virtually no energy costs.
- We incorporated a removable access panel at roof level enabling the engineers' quick entry to the internal mechanical equipment and controls.
- The penthouse louvers were also designed to fit perfectly with the roof walk-way environment for the students.

GDL products used on this project: Penthouse Louvre, Ventilation Grilles including Ceiling Diffusers and Eggcrate Grilles