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CONTROLS

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South
AYRSHIRE
COUNCIL

CASE STUDY

Invergarven ASN School, South Ayrshire Council



"This project has been a great success. I feel that our eco-ventilation control system will greatly improve conditions within the School and significantly decrease the Schools' energy consumption"

Roy Alexander, Managing Director

Project Brief

The new Invergarven Additional Support Needs (ASN) School was completed on July 31st 2018. The new £3.7 million facility replaced the previous building on Henrietta Street in Girvan. The building will provide optimal areas for learning and development and will include a fully equipped sensory room and a hydrotherapy pool. We were contracted by The South Ayrshire Council to install a 2-stage heating and natural ventilation control system that improves air quality and temperature efficiency.

Recent studies have found that a poor internal environment can have significant negative effects on both staff and pupils in learning spaces. As standards and requirements for school ventilation increase, there has been a substantial drive towards utilising clean, fresh air from outside when installing ventilation. Research has also shown there to be a considerable increase in comfort and wellbeing with eco-ventilation systems; this is due to the dilution of gases such as carbon dioxide. Moreover, other issues such as odour control and the spreading of respiratory diseases are dramatically improved with effective eco-ventilation.

Our Solution

We believe that the optimal internal environment for the Invergarven ASN School should utilize outdoor air combined with additional mechanically-forced ventilation. Furthermore, gas dilution, temperature efficiency and correct air velocity are major priorities for us. To achieve such an environment in this project we used a series of both high-level outlet louvres and low-level inlet louvres that operate automatically with the outside temperature. This system provides a fully sustainable source of free air cooling. Additional ventilation controls were installed via Passivent's Airstract that mechanically ventilate the outside air; providing an optimal heat recovery and cooling system. The entire ventilation system is controlled with Schneider Electric's EcoStruxure platform that allows for ease of use for inhabitants

