Case Study - Graiseley Music Service, Wolverhampton

Comfort in 100 year-old buildings transformed by Caspian fan convectors

The Client
Graiseley Music Service in Wolverhampton is a specialist music facility where the buildings date back over 100 years. The buildings are a rabbit warren of rooms with high ceilings and older sash type windows. The heating system was also very old, and the cast-iron radiators were thought to be at least 80-years old. Whilst these radiators have served staff and pupils well over the years the time had come to look at ways to improve the efficiency of the heating and comfort of the facility. The facility is often at its busiest in the evenings so heating the classrooms and other rooms meant keeping the whole site heated wasting energy and using up valuable money that could be used elsewhere.

The Challenge
The challenge to heat such an old building with large rooms and high ceilings was given to RMC Mechanical in Wolverhampton, and under the direction of Clive Jones, Director, they developed a scheme to that would satisfy the requirements of improving the comfort levels for the staff and pupils, reduce the running costs with a more controllable and efficient heating system. Addressing the variable use of the buildings with both day and evening required a heating system that could quickly heat the space when it was needed without wasting energy. Because there are rooms with high ceilings and also corridors, and reception areas, where pupils are constantly entering from the outside it was important to ensure that the solution addressed this.

The Solution
The first thing on the agenda was to remove the cast-iron radiators which were both inefficient and also gave some concern because of their high surface temperature potentially causing burn injuries to children. They were replaced with Smith's Caspian Fan Convectors. These were installed at a height of 1.8m above the ground removing them from any possible contact by the children. By mounting them at this level a further benefit was that the wall space that was previously covered by the old radiators was open for teaching space. To provide control for the Caspian fan convectors individual room thermostats were placed in each room, allowing teaching staff to set a comfortable room temperature.

The Caspian fan convectors now provide heat when it is needed so that in the evenings, when the facility is at its busiest, only the rooms that are needed are heated, and they heat up very quickly using the fan convector technology reducing wasted heat and therefore energy and money. Each classroom has two Caspian UV fan convectors mounted high up on the wall and they are also in other rooms including the hall, staff room, and storage rooms. A total of 21 Caspian fan convectors were used in transforming this facility into a welcoming building and where the comfort of the staff and pupils has improved beyond their expectations. As the Site Manager of the facility, Suki Chahal, says "the Caspian fan convectors have made a vast difference to the heating".

> "The Caspian fan convectors have made a vast difference to the heating"
> Suki Chahal | Site Manager

The Products

Caspian fan convectors have been specially developed for a wide range of applications in larger spaces and commercial environments. With the ability to rapidly heat large areas at low cost, Caspian commercial fan convectors are both practical and energy efficient. They can be also installed in an adjacent room, or storage cupboard, with the warm air outlets positioned at the rear of the appliance and ducted into the adjacent room such as a sports hall or even a narrow corridor, permitting an obstruction free wall space. They can also be supplied in any colour to meet the demands of the installation location. Fully compatible with renewable energy technology, such as ground and air source heat pumps, Caspian can also enhance your environmental credentials.

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