

Sinfin Community School, Derby

Products

- Wessex ModuMax boilers
- Wessex ModuMax manifold kits

Sector

- Education
- Public sector

Building

- Specialist engineering school
- New build

Application

- Space heating 660kW
- Modular boilers



Sinfin School, one of the most environmentally friendly schools in the UK



Wessex ModuMax boilers supporting biomass

Sinfin Community School in Derby was rebuilt after a major fire with funding from the government's Building Schools for the Future Pathfinder programme. Sustainable features include a biomass boiler, which is supported by a Hamworthy Wessex ModuMax high efficiency modular boiler, plus a wind turbine, natural ventilation and rain water recycling. Its innovative design and sustainable energy features makes it one of the most environmentally friendly schools in the UK today.

Our Solution

The innovative plantroom design housing the boilers merges into a hill to provide ease of access for the biomass fuel wood chip deliveries.

The Wessex boiler was selected to meet the performance specification set out by Pick Everard's building services engineers and the M&E design & build subcontractor Balfour Beatty Engineering Services, to fit in the remaining tight space after the biomass boiler and fuel handling equipment was allowed for.

"Plantroom space is always at a premium and we required a boiler that fitted in size and yet had sufficient output to meet the schools needs at particular times," said Phil Johnson of Pick Everard.

"The Wessex ModuMax was deemed to be the perfect choice for this installation with its extremely small footprint whilst not compromising on output and efficiency. Indeed the ability to achieve excellent turn-down was also a key decider."

Wessex ModuMax boilers, being extremely compact, are the only commercial floor standing boilers that can provide nearly 1MW of output per square metre, weighing less than 1kg per kW output. Wessex ModuMax boilers also achieve the highest rating for low NOx emissions – European Class 5 performance.

In this instance, the 660kW gas fired boiler uses three 220kW modules stacked one above the other to accurately match the building load requirements, handling the peak loads alongside the biomass boiler. They feature a fully modulating pre-mix burner control system, with an electronic thermostat monitoring the boiler operating conditions, automatically adjusting the output to suit.

A Wessex ModuMax manifold kit was also installed at Sinfin Community School. The kits are factory tested and part assembled for ease of installation and includes valves to isolate individual boilers. The headers are fitted with sockets to accommodate instrumentation and control sensors, all making the boiler installation simpler and quicker.



The compact Wessex ModuMax modular boilers