

HARROGATE GRAMMAR

Biomass Boiler



KEY FEATURES

- State-of-the-art, BMS-controlled biomass boiler installed
- Complete strip out and overhaul of antiquated plant room
- Detailed project management to ensure no disruption to teaching
- Pre-fabricated 3D modelling to visualise the new facility for the client
- Dramatically reduced school's running costs and carbon footprint
- Complemented school's sustainability policy with educational benefits for pupils

THE DETAILS

Project title:
Harrogate Grammar School

Location:
Harrogate, North Yorkshire

Client:
Harrogate Grammar School

Services:
Complete new boiler house including biomass boilers, gas boilers, water heaters, flues, pressurisation units, pump sets and complete new BMS system.

Value:
£290K

THE BRIEF

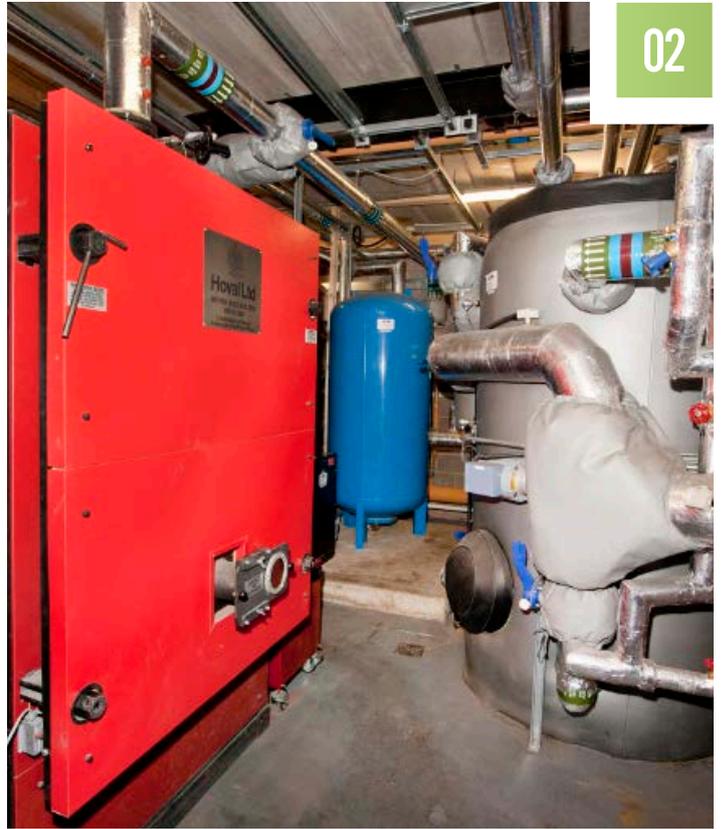
Harrogate Grammar School's antiquated heating system was not fit for purpose.

Dating back to the 1970's, the plant room technology was old and in poor condition.

The existing boilers were inefficient, the utility costs were becoming increasingly expensive and the system environmentally damaging – at odds with the schools green agenda.

The school wanted a highly efficient, modern system that would reduce fossil fuel usage and cut its carbon footprint.

In addition to the installation, there had to be no disruption to the school's ability to deliver its curriculum while the installation took place.



OUR APPROACH

It was immediately apparent that the school's current plant room and heating system needed stripping out to be replaced with a new purpose-built system.

Biomass is the ideal sustainable fuel source for large-scale premises such as schools because there is room to install the boiler and equipment and service it when required.

To explain how it would look to the school and the advantages of doing this, we created a pre-fabricated 3D model demonstrating how much more efficient, simpler and cleaner the new biomass system would be.

Our next step saw us stripping out the two old 500kW gas fired boilers, water heaters, pumps and associated pipework.

It was replaced with one 200kW biomass boiler featuring a fully automated Building Management System to make sure it runs at maximum efficiency.

New gas fired boilers and water heaters were installed as secondary heat providers should demand increase above the biomass boiler's capacity and act as insurance to ensure the school will always be heated.

We assisted the school registering the biomass boiler with the Government's Renewable Heat Incentive (RHI) scheme so the school receives a payback per kWh of heat generated for the next 20 years.

Our work was delivered on time, with no disruption to pupils or teachers and has transformed the way the premises are heated.

It is estimated to save the school greatly on fuel bills every year and reduce its carbon emissions.

The school uses the new technology to educate pupils about sustainable fuel sources and its impact on the planet.



Project Highlights

A complete turnkey package was provided by G&H from asbestos removal to civils to roof repairs and all mechanical and electrical works.

The project was on site for a relatively short time due to a large proportion of the pipework being pre-fabricated at our off site facility prior to delivery and installation.

