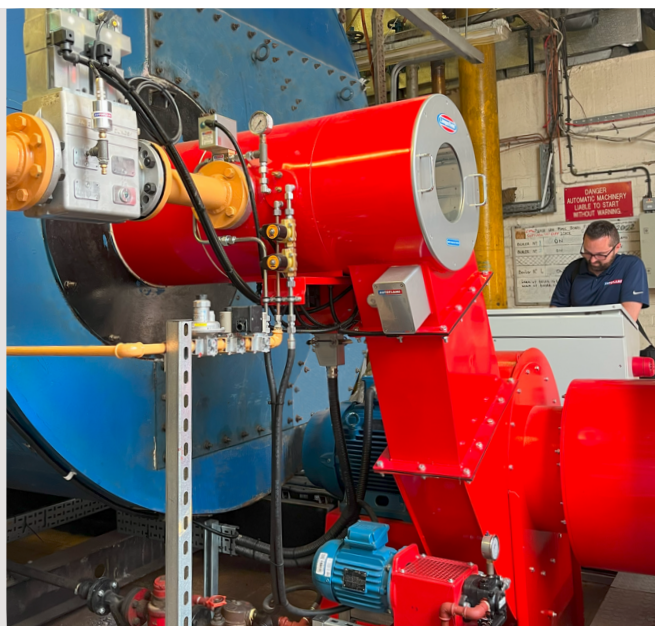


# St Mary's Hospital

## London, England

A large scale, critical project that included upgrading 3 steam boilers with end of life burners and control panels to increase the efficiency and reliability of the plant room, whilst meeting MCPD regulations and reducing fuel costs.

We installed 3 Limpsfield burners alongside 3 Autoflame bespoke control panels with Mk8 MM Controls.



### THE PROBLEM

- Existing burners and control panels were at the end of their life cycle and required replacement due to lack of performance and unreliability of the equipment. A solution was also needed for the site's high fuel usage to reduce costs.
- Current equipment was not meeting MCPD regulations, emissions of the plant required reduction, logging and reporting capabilities.

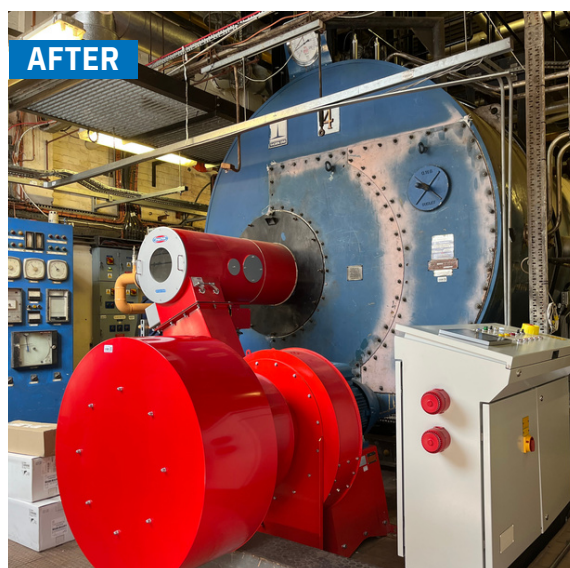
### THE GOALS

1. To improve combustion efficiency
2. To reduce fuel bills and maintenance costs.
3. To meet MCPD regulations by reducing and reporting emissions.

### THE RESULTS

Following a very successful installation and commission the client experienced instant benefits, including:

- **Increased reliability** - reliability of their equipment was vastly improved, delivering optimum efficiency and minimal downtime for this critical site.
- **Increased combustion efficiency** - the fully modulating Limpsfield burners and Autoflame controls yield an instant fuel reduction in excess of 16% with a emissions reduction of over 25%.
- **Compliance with MCPD** - the client is now fully compliant for impending MCPD regulations, as well as being fully equipped for 100% hydrogen firing as and when required.
- **Safety, knowledge & support** - training was given on-site for all operators, of who are fully supported by Autoflame combustion experts.
- **Peace of mind** - a full suite of critical spares were supplied which are all made here in the UK with a large stock holding for rapid response.



### St Mary's Hospital London, England



#### THE STRATEGY

Due to the critical nature of steam demand for the hospital, it was imperative that there were no interruptions to the supply. Autoflame delivered a program of works that minimised the boiler's downtime whilst fully supporting the operational boilers to ensure a smooth transition from old to new.

New Limpsfield burners and Autoflame control panels were promptly installed and commissioned. This included a full suite of water level controls, TDS modules and fully automated bottom blowdown controls for optimised operational efficiency at all times as well as increased safety and reliability. All water level controls and modules fitted to the boiler are fully compatible with the Mk.8 MM for a complete overview of the boiler at all times.

Exhaust gas analysers were then installed to all boilers to continuously monitor emissions and intelligently trim the combustion if needed for continuous optimum efficiency.



#### THE EQUIPMENT

##### Pre-Existing

1 x Thorn Emi Boiler with 1 x Dunphy burner TD420 NVML VPRT SC  
(868 - 5539kW Output)

1x GWB Boiler with 1 x Dunphy burner TD415 ZMH VPRT SC  
(750 - 4800kW Output)

1 x GWB Boiler with 1 x Dunphy burner TD410 ZMH VPRT SC  
(600 - 3830kW Output)

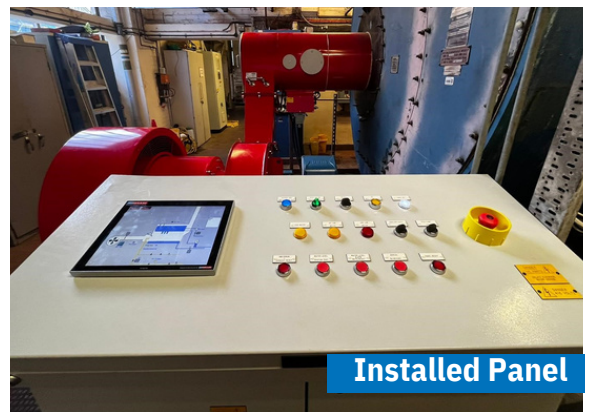
All boiler/burners were dual fuel but only ran on Natural Gas due to oil tank / pipework supply issues.

##### Newly Installed

- 1 x Limpsfield LCNO72 (Dual Fuel) burner
- 1x Limpsfield LCNO53 (Dual Fuel) burner
- 1 x Limpsfield LCNO36 (Dual Fuel) burner
- New gas boosters
- 3 x Floor standing bespoke Autoflame Mk8 MM dual fuel control panel
- Autoflame water level controls
- Autoflame TDS module / automatic feedwater valve
- Autoflame bottom blowdown module
- 3 x Autoflame Mk8 EGA EVO exhaust gas analysers



Mk8 EGA EVO



Installed Panel



Pre-Existing Panel