



CONTRACT REPORT



**Customer:**

RJAH Hospital

**Boiler Type**

3 x 3200 kg/hr Robey Loos steam boilers

**Fuel Fired:**

Natural Gas  
Diesel

**NOx Emission:**

MCPD (80mg/Nm<sup>3</sup>@3% O<sub>2</sub>)

**Tech Centre**

Autoflame Engineering Ltd.



RJAH hospital reportedly had issues with their burner equipment. They were struggling with a lot of cycling, each burner had a very low turndown ratio and the burners were equipped with an old technology/mechanical linkage type burner control system (without PID or precise set-point control).

A detailed site survey was carried out by Limpsfield's UK technology centre - Autoflame Engineering and this identified the burners to be running at approx. 6% O<sub>2</sub> at mid fire and 9% O<sub>2</sub> at low fire, where the burners were operating most of the time. By replacing their current burner system with Limpsfield Burners complete with an Autoflame Control System they would be able to reduce their fuel bill substantially (estimated above. 10%)

The client also opted for a complete remote control/monitor system as well as the EGA (Exhaust Gas Analyser), so they can monitor their emissions continuously and apply an O<sub>2</sub>/CO trim that could save them an additional 1% on their fuel bill.

**Project Results:**

- Minimum 6:1 turndown ratio, reduced start/stops, allowing more consistent load control, less stress on boilers.
- Running sub 3% O<sub>2</sub> at low/mid/high fire while also staying well below the current NO<sub>x</sub> emissions required by MCPD (Medium Combustion Plant Directive). – current system is future proof, allowing for even lower NO<sub>x</sub> emission in case/when required.
- Boiler Sequencing with Autoflame DTI (Data Transfer Interface) – ensuring that the minimum number of burners/boilers are in operation at any time.



Before



After

For more information on Limpsfield burner range, please do not hesitate to contact us.

Limpsfield Website: [www.limpsfield.co.uk](http://www.limpsfield.co.uk)  
Tel: 00 44(0)1959 576 633

Autoflame: [www.Autoflame.co.uk](http://www.Autoflame.co.uk)  
Tel: +44 01959 578 821





**Limpsfield burner unique design:**

- The large glass port allows for complete flame visibility.
  - o By removing the glass assembly, the complete burner head can be accessed and taken out easily – allowing for easy and very minimal maintenance.
  - o Burner mounted controls with full colour touchscreen – all information accessible and commissioning can be done while also being able to view the combustion process.
- No moving parts.

**Autoflame DTI – Data Transfer Interface.**

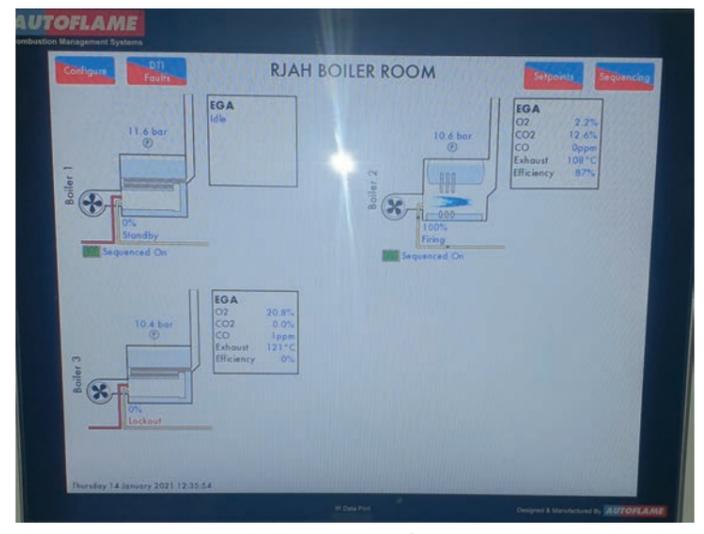
- Complete remote monitor / control via Modbus and Ethernet. Can be installed up to 1 km. Client has access to all data via remote software from PC / Laptop.
- Intelligent boiler sequencing software.

**Customer Feedback**

*Great workmanship and all engineers on-site & off-site were extremely helpful.*



Burner firing natural gas



DTI interface

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