



British Car Manufacturing Giants Reduce NOx Levels With Autoflame Upgrades

Jaguar Cars are a well known British manufacturer of luxury motor vehicles and have been established for over 80 years. Their Halewood facility with over 300 acres of manufacturing space, is home to Jaguar production and more recently since 2005 - Jaguar Land Rover.

Autoflame were approached to update their existing boiler system with a key focus on cutting emissions and reducing fuel consumption. The project was one of the largest 're-burner' installations in Europe and the client has seen a 6.3% reduction in harmful emissions since completion.

It was important to reduce NOx levels on site; Autoflame worked closely with Limsfield to achieve this and guaranteed the low NOx requirement. With a level of expertise that no other manufacturer could offer the Autoflame and Limsfield solution on site has seen NOx levels reduced from 114ppm to 31 ppm.

Four of the 5 boilers on site were upgraded with Limsfield burners and Autoflame combustion management systems, replacing the original Hamworthy controls. Autoflame Mk6 units were installed for each of the boilers along with an Emissions Gas Analyser (EGA), allowing the site to monitor exhaust gases to ensure they were operating an efficient combustion process at all times.

The Autoflame Data Transfer Interface (DTI) was also installed with an uninterrupted power supply (UPS) to monitor the boiler house - logging all emissions in order to control NOx levels and make minor automatic changes to the combustion process when required. The burners were modulated to operate together at the same firing rate, which meant if one burner were to stop functioning the others would shut down automatically as a safety precaution.

Existing Equipment:

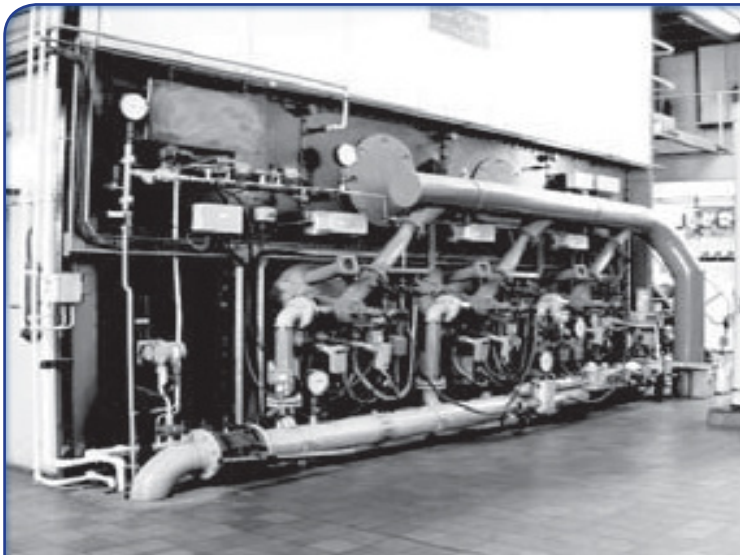
Dated, inefficient Hamworthy combustion system causing high NOx levels

Solution:

Autoflame Mk6 MM Control System with Limsfield Burners, Autoflame EGA, DTI

Benefits:

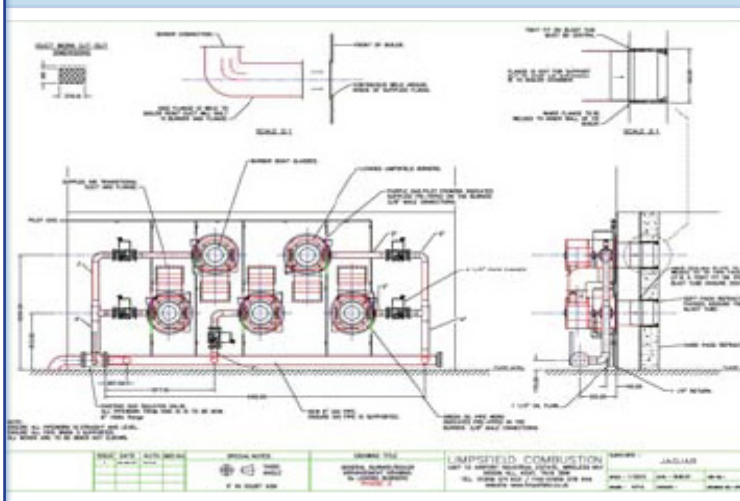
- Reduced emissions
- Enhanced safety
- High level of precision and accuracy throughout the system
- Energy and cost savings
- Increased combustion efficiency



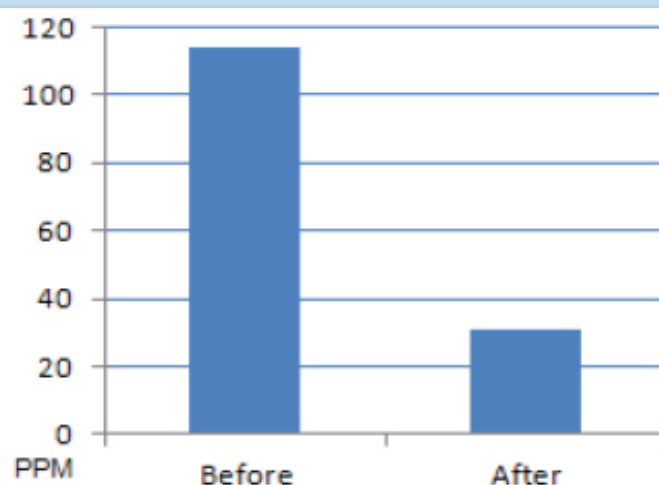
Before



After



Project Drawings



NOx Reduction Before and After Installation

For further reductions in energy use Variable Speed Drives (VSD) were also installed onto the fan motor to control operation speed and minimise the amount of energy used.

The project was a success and Jaguar Land Rover are pleased with the improvements that the Autoflame Limpsfield Solution has made to their manufacturing process as well as their impact on the environment.



Autoflame operates worldwide with 70+ technology centres performing installation and support. Founded in 1972, Autoflame is a British manufacturer based near London. It ensures industry-leading quality control and innovation by performing in-house R&D, engineering, software development, manufacturing production, and technical support.

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