KENT SCIENCE PARK

Science Park Minimizes Carbon Footprint

"We have converted two Hamworthy dual fuel burners over to the Autoflame digital control and run them for nearly 12 months with excellent results. We will be fitting the last boiler with the same controls this year. The engineers did a very neat job of the installation and required little in the way of management from me."
Stephen Moore, Facilities Manager, Kent Science Park

Kent Science Park (KSP) based in Sittingbourne, England, is a secure facility, home to over 60 organisations specialising in life science, engineering and medical technology. Working with property agent Jones Lang La Salle, they are one of the largest providers of purpose built laboratories and accommodation for knowledge based companies in the South East. With a strong commitment to minimise their carbon footprint, KSP have taken a number of steps to reduce their emissions and wanted to look at improving their boiler house solution to cut emissions and reduce their fuel spend.

The project brief was to retrofit two of the original Hamworthy burners with Autoflame controls and Micro Modulation System (MM) to improve efficiency and increase combustion control. A key objective of the retrofit was to replace the old mechanical linkage systems with the Autoflame Combustion Management System, controlling the air damper and fuel valves directly using micro processor technology.

Most burners traditionally use a linkage type mechanical system, they have multiple cams and shafts that may be controlled by one motor. The design of such a system allows it to be loose and such characteristics have made the accuracy of fuel/air ratio control impossible. The poor accuracy and response of the fuel/air ratio in relation to a target temperature or pressure has meant that the target set has at most times overshot or fallen short.

The existing control panel was retrofitted with the Autoflame Mk7 MM unit and UV Flame Scanners were also installed as an additional safety measure.

Existing Equipment:

Two Hamworthy burners, old mechanical linkage system

Solution:

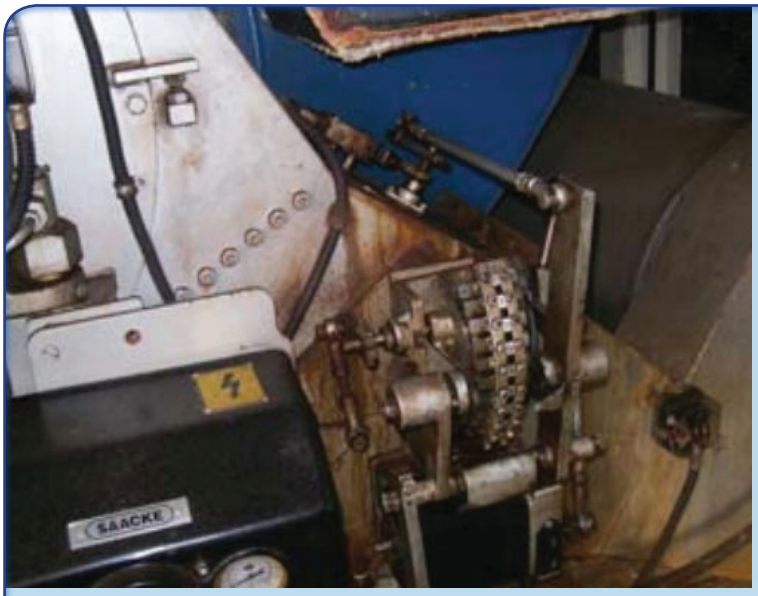
Retrofitting burners with Mk7 MM controls and replacing old linkage system with Autoflame Combustion Management System

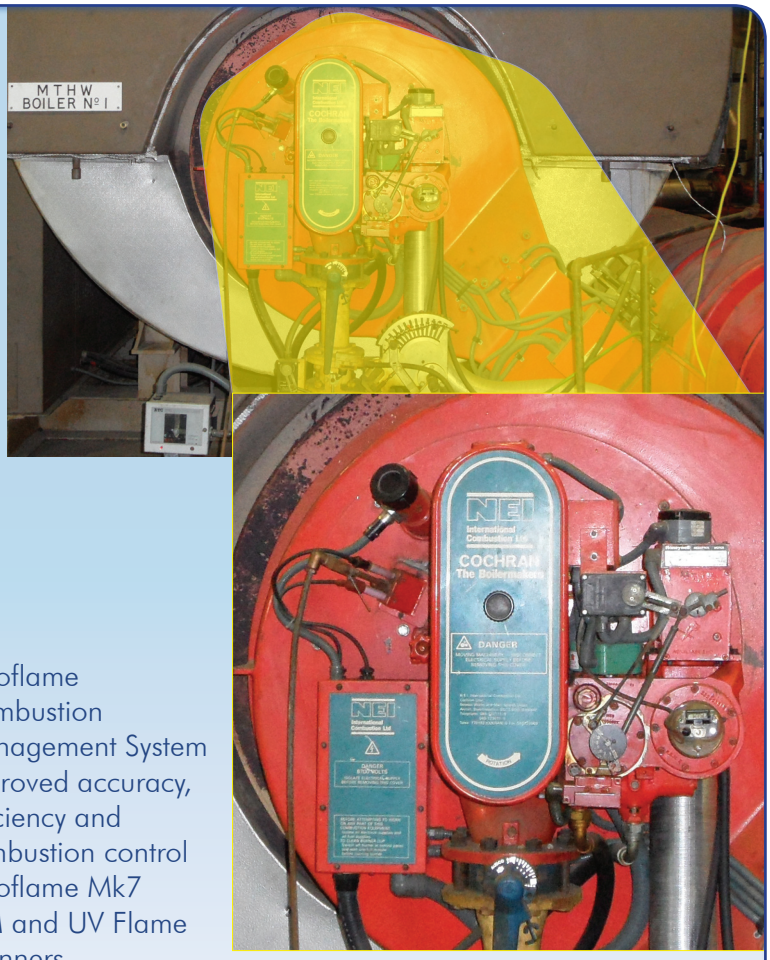
Benefits:

- Reduced emissions & fuel expenses
- Minimised carbon footprint
- Renewed efficient system instead of linkage
- Accuracy of fuel/air ratio
- Detection of flame within boiler- imrpoved safety

CASE STUDY

AUTOFLAME®





Before:

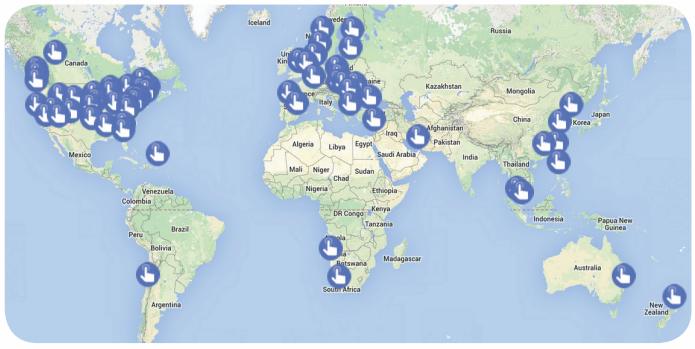
- Mechanical old linkage based system
- Poor accuracy and response of fuel/air ratio control
- Control panel without flame scanners

After:

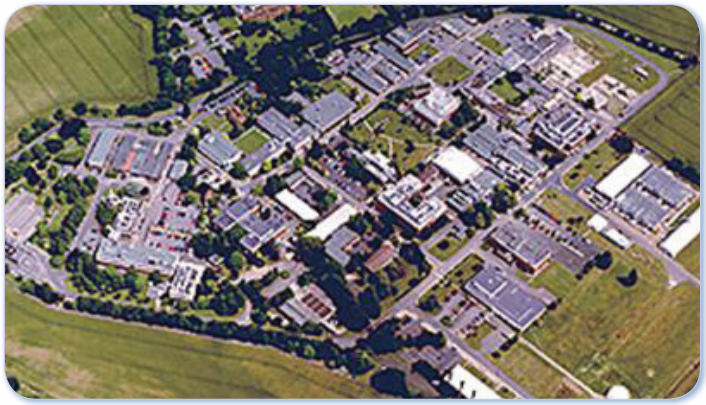
- Autoflame Combustion Management System
- Improved accuracy, efficiency and combustion control
- Autoflame Mk7 MM and UV Flame Scanners

This is used to detect the presence of a flame within the boiler, if for any reason the flame is not detected the system will lock out until the problem is rectified.

Kent Science Park were happy with the work completed and rated the quality of service as 'excellent'. They are now looking to install the Autoflame Data Transfer Interface (DTI) which will allow the boiler to communicate with the on site Building Management System (B.M.S) enabling remote control of the boilers and the ability to collect combustion data.



Autoflame operates worldwide with 60+ 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.



Aerial View of Science Park

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Contact us to receive a complimentary fuel savings and emission reduction report.

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