



Chinese Fibre Giant Reduces Emissions And Achieves High Level Of Accuracy In System

China Man Made Fibre Company (CMFC) manufacture man-made fibres for domestic use such as Rayon Yarn, Cellophane and Polyester filament. They also produce petrochemical raw materials such as Glycol and Ethylene Oxide.

Their manufacturing plant based in Taiwan wanted to look at updating their combustion system by replacing the existing heavy oil burners with more efficient gas and oil burners. This would reduce the level of emissions produced and improve the operation of the boiler plant. Autoflame worked with on-site engineers, following strict specifications to replace the old system and meet the project objectives.

Preheated combustion air was used to improve the overall system efficiency and as such the materials used during the upgrade needed to be able to withstand extreme high temperatures. The design specification required the burners be made from stainless steel and include high temperature rated components.

Limpsfield stainless steel Burners firing natural gas and heavy fuel oil were installed onto 25 and 35 tonne water tube boilers. The nature of the site and chemicals used for production meant that the equipment used during the project needed to be explosion proof - for this reason the gas trains that were fitted were also ATEX explosion proof. Two new control panels were designed to specifications and the Autoflame Mk7 Combustion Management System was installed to compliment the burners. The Mk7 works as a monitoring and control device using direct servo motors and UV Scanners to ensure the system operates with the highest level of precision and accuracy.

Autoflame Servo Motors use state of the art technology to automatically control the amount of fuel and air that goes into the burner and the UV scanners work to measure and detect the presence of a flame inside the boiler - should the flame go out for any reason then the system will shut down, enhancing the safety features included with the Autoflame Mk7 System.

Existing Equipment:

Heavy oil burners, inefficient combustion system

Solution:

Limpsfield Burners with Autoflame Mk7 MM Control System

Benefits:

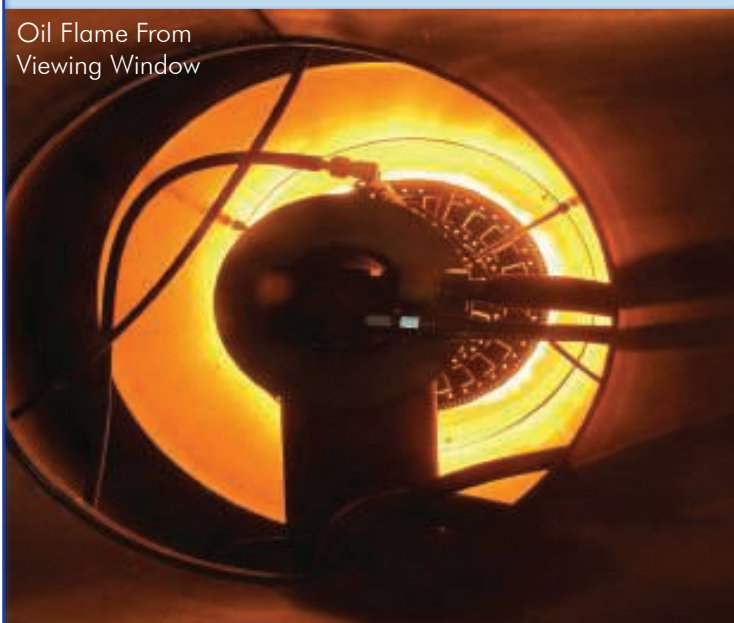
- Reduced emissions
- Enhanced safety
- High level of precision and accuracy throughout the system
- Flame detection inside the boiler
- Increased efficiency



Above: New System Arrives On Site



Above: 25 Tonne Boiler Installed



Oil Flame From Viewing Window



Boiler With Gas Trains

The installation went well and CMFC were pleased with the engineering capabilities of Limpsfield and Autoflame - so much so, that arrangements have now been made for a further 3 burners upgrades to be completed later this year.



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.

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