



## Paper mill pulps energy costs using Maxsys Fuel Systems

**A large Northwest paper mill has installed Maxsys Fuel Systems technology saving 6.8% off their energy bill, inspiring them to place new orders with Maxsys for other applications.**

### The Challenge

Union Papertech located at Heywood, Lancashire, is part of the Purico Group, a 4,500-employee organisation with a global presence. Through its policy of continuous investment in the latest technology, the company selected the Maxsys Fuel Systems to help it achieve its objectives of reduced fuel usage, lower energy bills and fewer carbon emissions. Maxsys Fuel Systems are a patented fuel treatment device that improves combustion, however, not all were convinced from the outset, including Union Papertech's chief engineer Steve Sherlock.

Steam generation is an intensive process deployed by Union Papertech to dry the paper as part of its manufacture (the product becomes 99% water by weight) before it is dried.



The mill at Simpson Clough houses a Maxecon twin-shell steam raising boiler fitted with two Saacke burners. The unit consumes 18 million kWh of gas per annum.

### The Solution

It was agreed by Union Papertech and Maxsys that ABB Engineering Services, acknowledged as leaders in energy management, would undertake an independent evaluation of the performance of the Fuel Systems pre and post installation using the established CUSUM statistical model (the units were fitted, one to each burner in June 2007).

Working with Union Papertech, ABB assessed the installed metering and monitoring on the boiler and produced a 'Test Protocol' that outlined the performance characteristics of the plant and detailed a list of variables that would be recorded in order for the boiler to be monitored accurately. The Test Protocol was agreed and signed by ABB, Union Papertech and Maxsys.

## The Outcome

Analysis showed that gas consumption was 6.8% lower at the end of the post installation period for an identical amount of steam generated, equating to a substantial gas saving of 8229 ft<sup>3</sup> per day (equal to 3 million ft<sup>3</sup> a year) with a commensurate reduction in carbon dioxide emissions.

Mr Sherlock cites a significant benefit of Maxsys Fuel Systems being zero maintenance. "Initially I was concerned that high levels of maintenance might offset the benefits offered by this technology. However, there are no maintenance issues whatsoever," he says. "I can't be anything else but pleased with the benefits offered by the technology.

In fact, as a consequence of the performance of the Fuel Systems on the Maxecon twin-shell boiler at Union Papertech, the company has agreed to install two additional Fuel Systems units on its through-air driers".



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*Steve Sherlock, Chief Engineer.*

