



SORBACAL® Heat: Rapid and effective in-furnace DeSOx whilst keeping heat exchanger surfaces cleaner

THE CHALLENGE

Biostoom Oostende is a Waste-to-Energy plant in Belgium that generates heat and electricity by incinerating non-recyclable industrial waste, while fully complying with European emission standards.

A collaboration was initiated with Lhoist to drive continuous improvement, aiming to enhance both boiler performance and Flue Gas Treatment operations.

The first objective is to address periodic SO₂ inlet peaks associated with seasonal or sudden changes in fuel composition.

The second is to reduce fouling in the furnace and heat exchangers, thereby enhancing plant safety, reliability, and efficiency.

THE LHOIST SOLUTION

Sorbacal® Heat is a new product family specially engineered for direct injection into furnaces at 850 – 1050 °C. The sorbent is tailored to each customer's application (fuel type / ashes / configuration) and requirements.

At Biostoom, the dual functionality of acid gas abatement and boiler anti-fouling were provided. This was supported by robust technical assistance to ensure optimal sorbent conveying and dispersion, including the use of CFD modelling, expert consultancy, and Lhoist's proprietary equipment and technologies to enhance dosing precision and product distribution within the boiler.

The success of this solution was made possible using Sorbacal® Heat and the close collaboration between Lhoist and Biostoom.

"It's not the how or the what

but the **Who**

that is so important to make something work."

Bart David, Biostoom Operations Manager

THE BENEFITS

The use of Sorbacal® Heat led to significantly better acid gas abatement and boiler operation creating immediate and long-term operational gains:

- Rapid and effective abatement of SO₂ peaks
- Wider fuel flexibility
- Enhanced heat exchange efficiency
- Improved reliability and lower maintenance costs

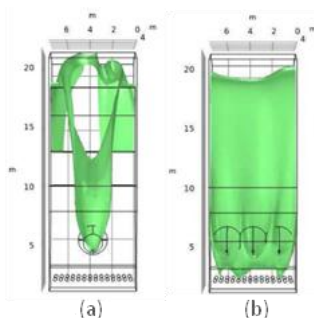


Figure 1: Lhoist CFD model for optimum sorbent dispersion (a) current design (b) recommended design.

OUR EXPERTS CLOSE TO YOU

Find the best solution for your business by contacting one of our experts in your country or region via the contact page on www.lhoist.com.

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