Heat Management

# Skelleftekraft, Lycksele

Application: Biomass boiler
Efficiency solution: Infrasound Cleaning
Cleaning area: Economizer and air preheater

## General info

Plant: Forsbacka Värmeverk
Boiler: Foster Wheeler
Fuel: 85 % biofuel, 15 % peat
Capacity: 47,5 $MW_{th}$

## Installation

Type: 1 x APX7000
Year of installation: 2014

## Situation description

The vertical back pass has 2 economizer tube bundles and 4 air preheater bundles. The flue gas temperature into the economizer is ~410 ° C and out of the air preheater ~140 ° C.

Each tube bundle is equipped with steam soot blowers. Before the infrasound generator was installed by Heat Management, the steam soot blowers in the economizer and the air preheater were operated 1-2 times a day.

The infrasound generator was installed for reducing the use of steam soot blowing in the economizer and the air preheater.

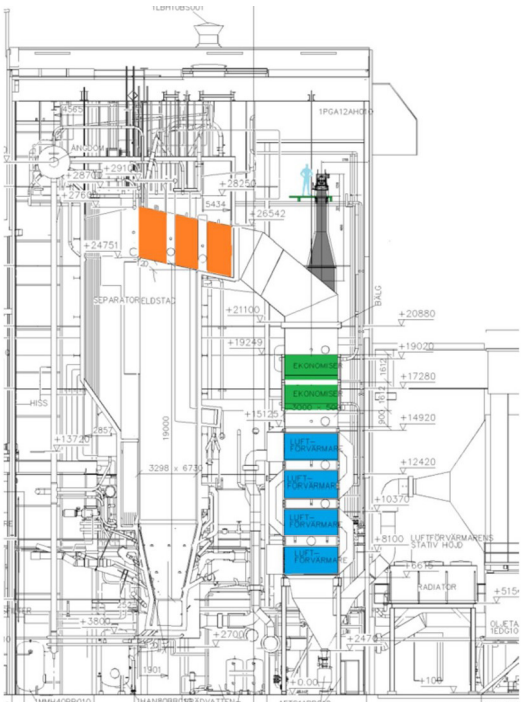


*Figure 1. Side-view of the boiler. Economizer marked green, air preheater marked blue. The infrasound generator is standing on top of the back-pass.*



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# Results

- **Eliminated need for steam soot blowing on half load**. When operating on half load the need for steam soot blowing has been eliminated, which results in increased boiler efficiency and reduced wear on tube bundles.

- **Drastically reduced use of steam soot blowing on full load**. When operating on 100 % boiler load the steam soot blowers are used 1 time/week for optimal performance of the boiler.

*Under references at [www.heatmanage.com](http://www.heatmanage.com), you can read about our technical and economical results for many of our projects.*

*We have gathered our knowledge based on our long experience of infrasound technology compared to conventional methods such as steam soot blowing, shot cleaning, compressed air soot blowing and audible sound (sonic or acoustic horns) in several "white papers" which are also available under references.*



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