A Case study from Heat Management

Ljungträ AB Köping, Sweden

Application: Smoke Tube Boiler
Boiler manufacturer: Danstoker boiler, HOTAB furnace
Fuel: Biofuel (tops and branches)
Solution: Infrasound cleaning

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General info

Industry: Sawmill
Boiler capacity: 3 MW_{th}

Infrasound generator

Type: APS15
Year of installation: 2021

Situation description

Ljungträ AB is a sawmill in Köping, Sweden, who's main business is to saw, sell and distribute fir. The sawmill has a 3 MW_{th} Danstoker boiler which required manual cleaning every time the flue gas temperature raised above 230-240 °C. Before Infrasound Cleaning was installed, the following situation applied:

- 5 manual cleaning stops every year.
- Normally 50-60 plugged tubes at each stop.
- Every stop caused a production loss of 1 day.
- Reducing the boiler load creates temperature variations, which in turn reduce the lifetime of the furnace refractory.
- The flue gas temperature naturally rose to around 300°C after a load increase, but even if the load was decreased again, the temperature kept rising, which in turn accelerated plugging issues.

Results

The installation of an APS15 Infrasound Cleaner was successful (see Figures 1 and 2). According to Jimmy Lahenvirta at Ljungträ AB, the project generated the following results:

- No need for manual cleaning since the installation.
- The flue gas temperatures are now stable and proportional to the boiler load, they vary between 155-185°C (compared to 300°C after a similar time of operation before Infrasound cleaning was installed)
- Lower load on flue gas fan (ID-fan), which saves energy.



Figure 1 - Infrasound installation



Figure 2 - Infrasound installation

Heat Management

Heat Management was founded in 2016 following a merger between Infrafone AB and Soottech AB. The purpose of the merger was to create a world-leading cleantech company with a superior product portfolio in energy conversion adapted for industrial boilers and incinerators.

Heat Management's primary customers include power and heat plants as well as pulp mills and marine companies. Today, Heat Management has patented solutions installed in a large number of applications around the world.

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