A Case study from Heat Management

Sappi Gratkorn Austria

Application: Red Liquor Recovery Boiler
Efficiency solution: High Impact Sootblowing System (HISS™)
Cleaning area: Superheater (SH)

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General info

Plant: Paper mill
Boiler: Andritz (WAAGNER-BIRÓ)
Fuel: Red liquor
Capacity: 165 ton steam/hour.

Installation

Type: HISS™ Advanced
No of sootblowers: 13
Year of installation: 2021

Situation description

Sappi Gratkorn is producing high-quality multi-coated paper. The mill has a red liquor recovery boiler equipped with 13 steam sootblowers (Forest F352 and Clyde Bergemann PS-SL at 33-35 bar), operating 6 times per day, leading to large costs.

HISS™ was installed on all 13 sootblowers with the objective to save 40% sootblowing steam and to eliminate disturbing pressure variations during sootblowing using HISS™ Steam Synchro.

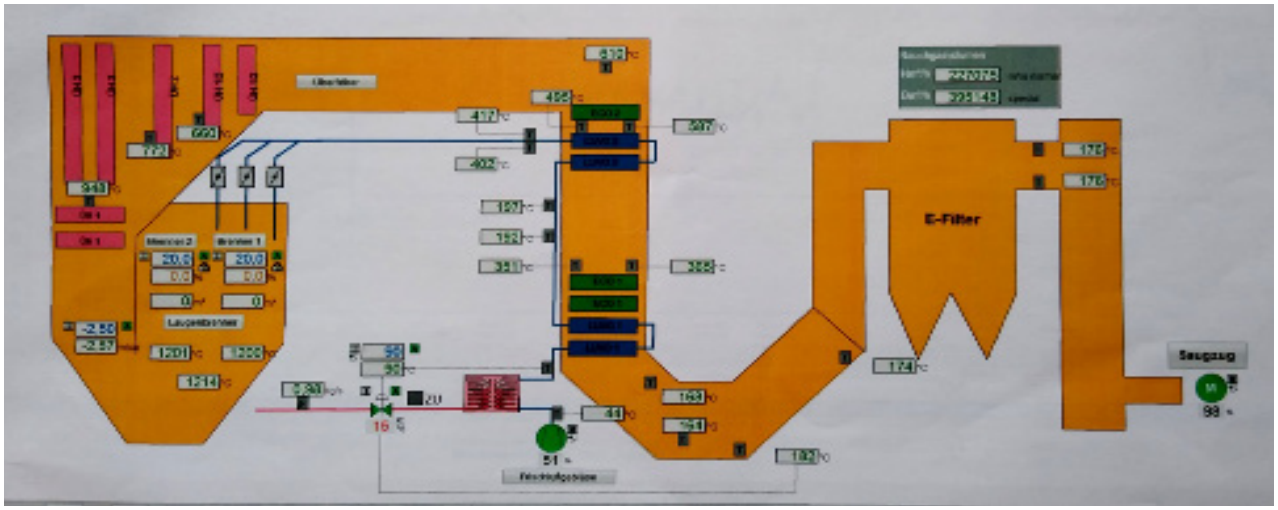


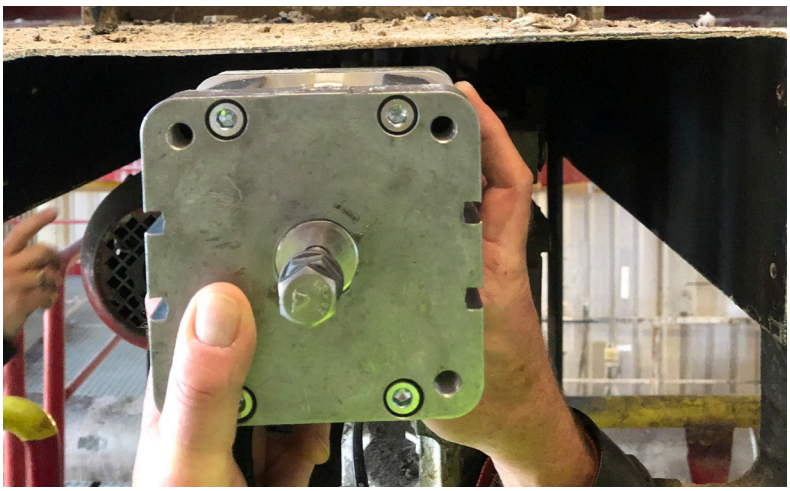
Figure 1. Boiler design

Results

HISS was installed on 13 sootblowers 2021, and generated the following results:

- 43% reduced sootblowing steam.
- 50% reduced time for steam sootblowing.
- Enabled a load increase due to reduced time for steam sootblowing. For this boiler, steam sootblowing operation requires a load decrease, HISS™ shortens the time for sootblowing operations by 50%, hence a load increase is enabled.
- 0,8 years ROI, calculated on steam saving guarantee, the load increase leads to even more savings.







Figures 2-4. Installation photos from Sappi Gratkorn.

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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