

Zero Shutdowns, Maximum Efficiency – How Vattenfall Boosted Performance with Aerovit ShockClean System.

Vattenfall Vänersborg, Sweden

The Challenge

During the heating season, each boiler required three manual cleanings, each resulting in a 2-day shutdown.

These interruptions affected operational efficiency and increased maintenance workload. Vattenfall aimed to eliminate these shutdowns to improve reliability and reduce operational disruptions.



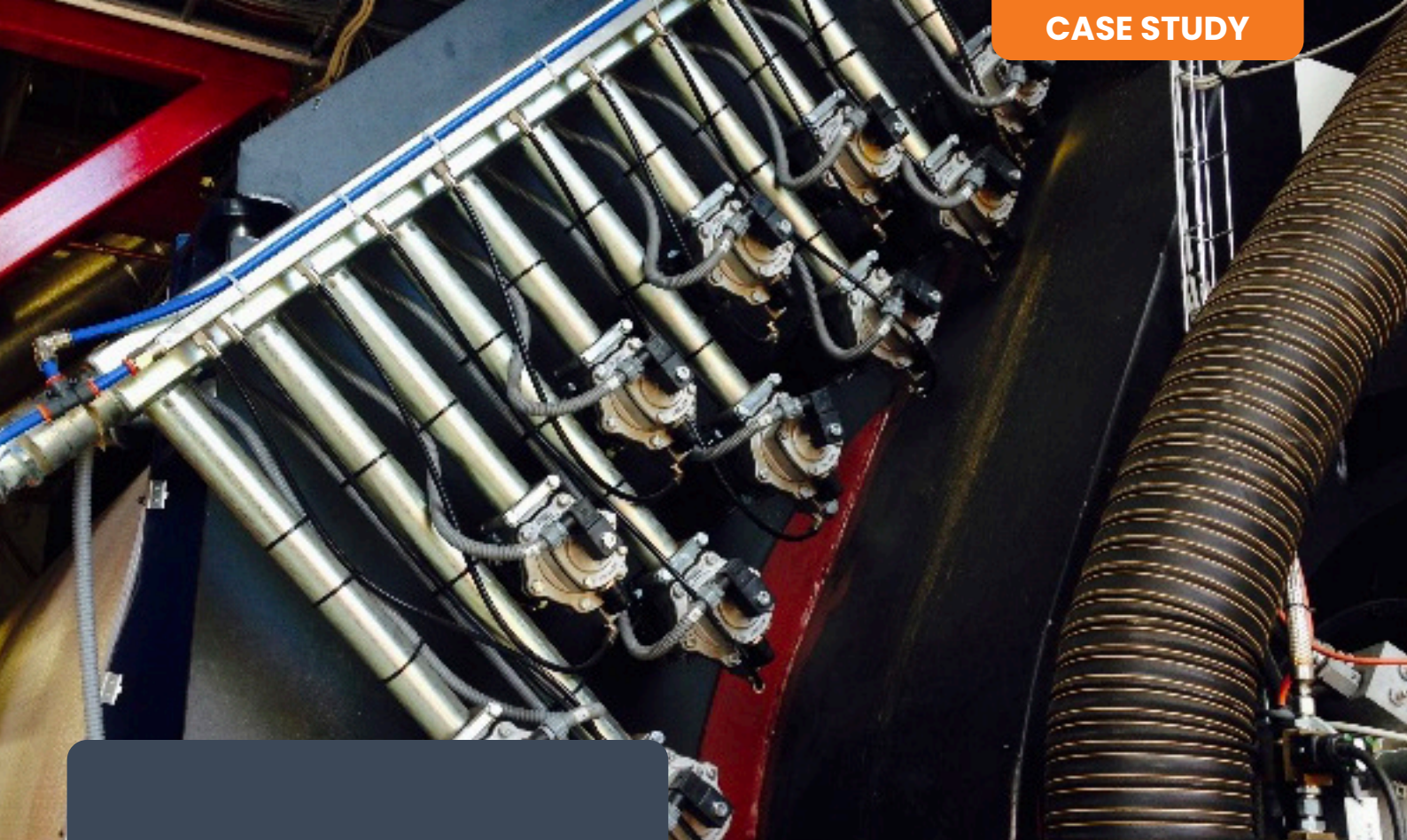
€110.000
Annual savings



from
85% to 93%
Increased boiler
efficiency



Elimination of
manual
cleanings



The Solution

Vattenfall installed the Aerovit Shock-Clean System on one of the two boilers. After just one heating season, the performance exceeded expectations.

The system allowed continuous operation throughout the season without the need for manual cleaning.

Due to these successful results, Vattenfall decided to equip the second boiler with the Aerovit system for the next heating season.

How does Aerovit Shock-Clean work?

The Aerovit ShockClean System is designed to maintain high boiler performance by removing soot and ash deposits.

Aerovit ShockClean System uses pure compressed air to deliver powerful shock waves to clean boilers. In just fractions of a second, 450 liters of high-compressed air is released through the Aerovit valve, effectively dislodging sediments and ensuring consistent cleanliness throughout the boiler system.

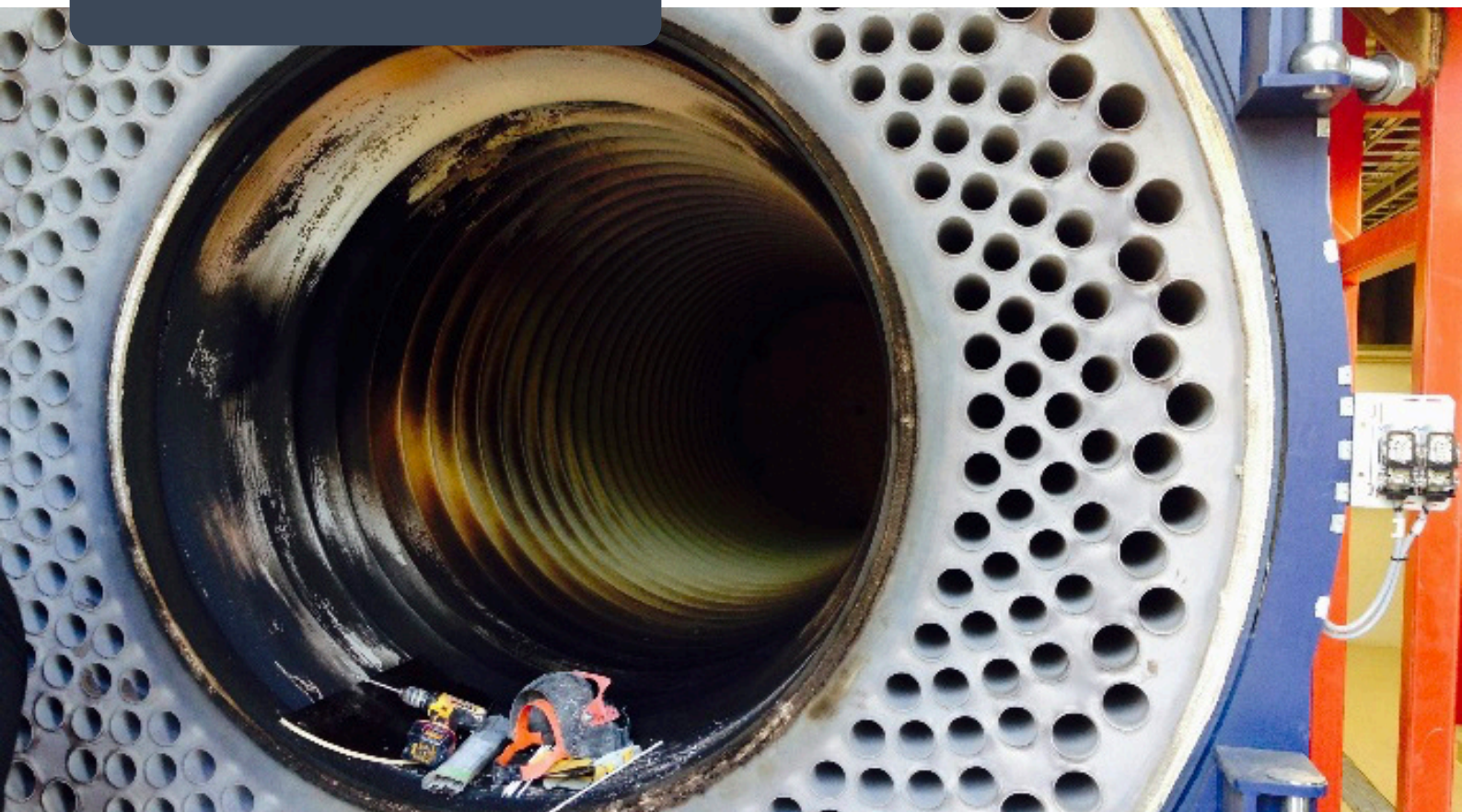
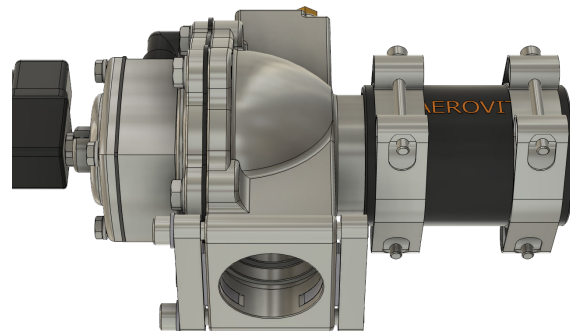
Unlike traditional cleaning methods, this system operates continuously during normal boiler operation, minimizing downtime and improving overall efficiency.

Features:

- Customized system designed to match the specific boiler design and fuel type
- Unique cooling system that protects the valve from high temperatures and corrosive flue gas
- Special sound silencer
- Low maintenance costs

Advantages:

- Payback time in 3-24 month
- Proven higher efficiency and boiler output
- Reduce manual cleaning and thus boiler shutdowns with 80-100%
- Reduce fuel consumption per produced MW
- Lower CO2 emission
- Robust design with few moving parts



The Result



Manual cleanings eliminated

During the heating season manual cleanings were eliminated.



Increased Boiler Efficiency

With the Aerovit ShockClean System, the boiler efficiency was increased from 85% to 93%.



€110.000 Savings

Vattenfall Vänersborg experienced €110.000 savings annually.

Overview

Vattenfall Vänersborg installed two 15 MW bio-oil boilers, supplied by Compab in cooperation with Robert Bosch A/S. These boilers are in operation during the heating season from December to March and play a key role in providing district heating to the region.