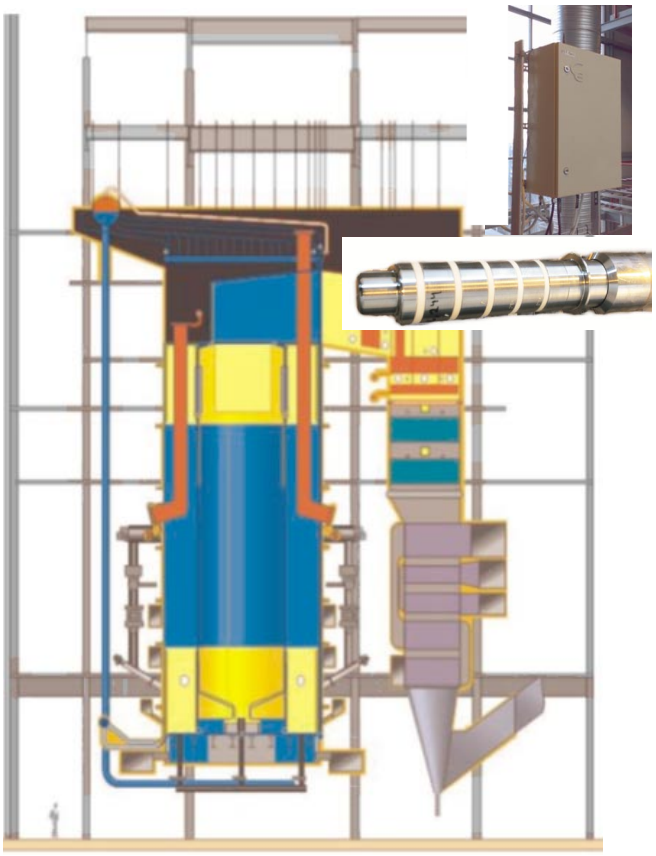
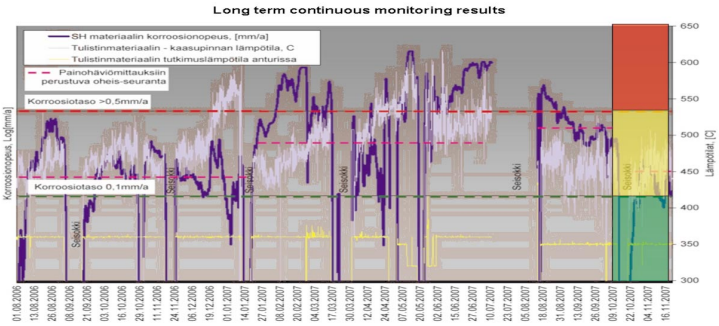
MoCoBo Corrosion Monitoring System

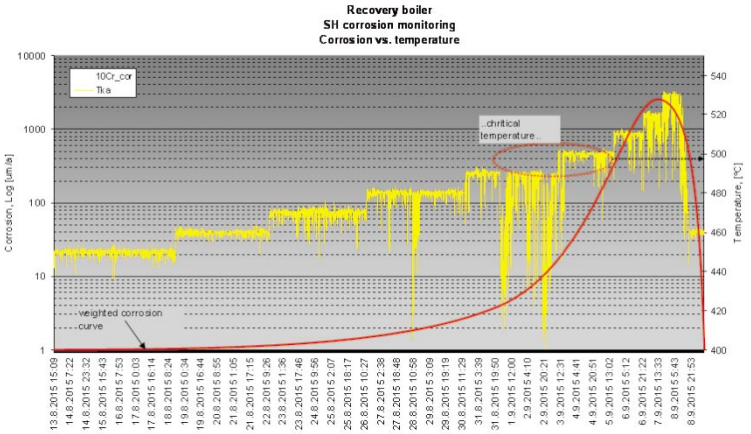
for the Boiler Super Heater area preventive maintenance to detect and avoid Hot Corrosion



LONG TERM MONITORING

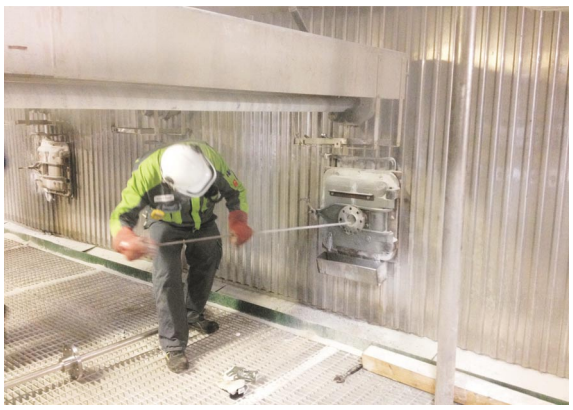


CRITICAL TEMPERATURE DETECTING



FUEL TESTING / IN LONG TERM USE TO OPTIMIZE MIXED FUELS

MoCoBo system is excellent tool for the corrosion monitoring when testing RDF, SRF, biomass, bio-mix or waste mix burnt fuels. Except in preventive maintenance, system could be used further in fuel optimization for the continuous use of mixed fuels.



The system is easy to install and quick to set up.

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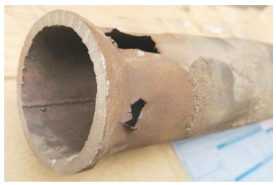
MoCo DP Corrosion Monitoring System

for the Boiler pre-heater efficiency improvment and prevent of corrosion in the Boiler Cold End structures

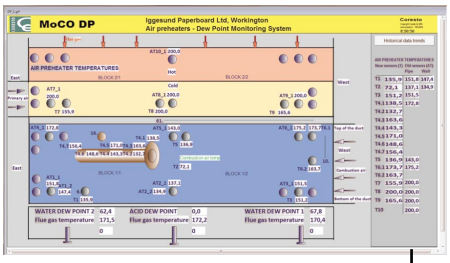
- Low temperature corrosion is experienced in an operating boiler when metal temperatures drop below the water or acid dew point (ADP) of the flue gas.
- H_2SO_4 and HCl are the acids which contribute most aggressively to corrosion.
- The H_2SO_4 ADP is largely dependent on the sulphur content of the fuel which mostly oxidises to SO_2 during the combustion process and on the proportion of SO_2 that converts to SO_3. SO_3 in turn converts to H_2SO_4 as the gas cools from about 400°C down to about 175°C.
- Chlorine in the fuel converts to HCl during the combustion process. The dew point of HCl is lower than that of H_2SO_4. However, even small quantities of chlorine can be aggressive at higher temperatures if zinc and calcium are present with high water vapour contents.
- The H_2SO_4 and HCl ADPs are dependent on the partial pressures of the water vapour, SO_3 and HCl in the flue gas.



A simple solution is to ensure that the lowest tube wall or surface temperature is above the dew point. However, then boiler efficiency drops.
Still, there is **risk of corrosion without continuous measuring and alarm system**.

MoCo DP continuous dew point detection system for acid and water dew point detection, offers the unique solution to operate safety with maximum efficiency of pre-heater. Within a system it's possible to achieve very significant annual savings. MoCo DPsystem consists of;

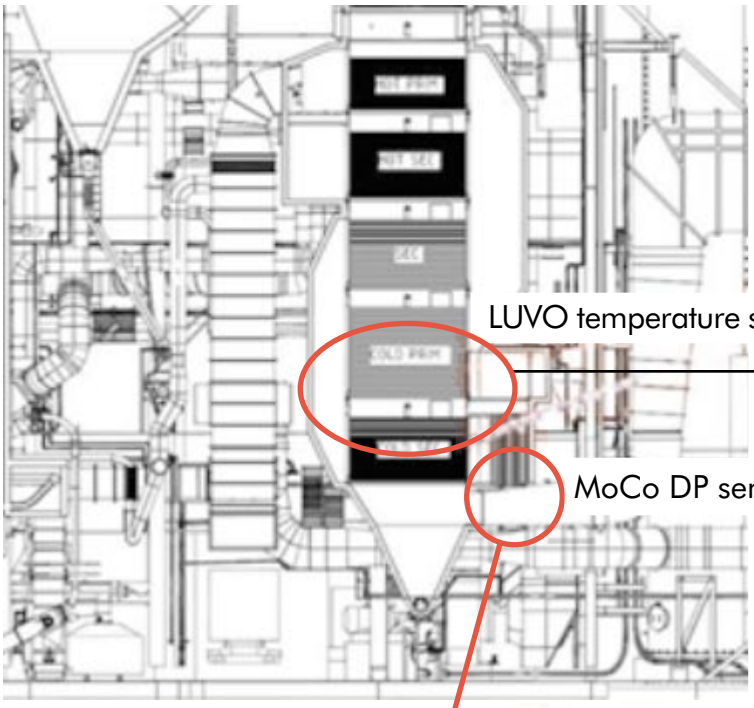
- MoCo DP probe(s) (for water- / acid dew point detection)
- MoCo DP main cabin
- Air pre-heater temperature measuring sensors
- MoCo DP_VICO data collection and site service / server system
- System connection into custom automation system (DCS)



Main screen (DCS)

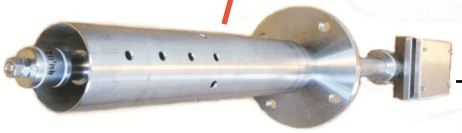
Ethernet

MoCo DP main cabin



LUVO temperature sensors

MoCo DP sensors



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