

## CLEANING FIN TUBES IN HRSG BOILERS



Bang&Clean Technologies AG  
licenses Pressure Wave Technology  
to its Technology Partners KRR  
ProStream in the UK and Detoclean  
in the Netherlands

### THE PROBLEM

HRSG boilers suffer from rust deposits on the fin tubes. This can happen particularly when a plant is situated near the coast and is exacerbated by repeated start ups and shut downs. Normal cleaning methods require a long shut down and cost a great deal in contractor fees and lost generation income.

### THE SOLUTION

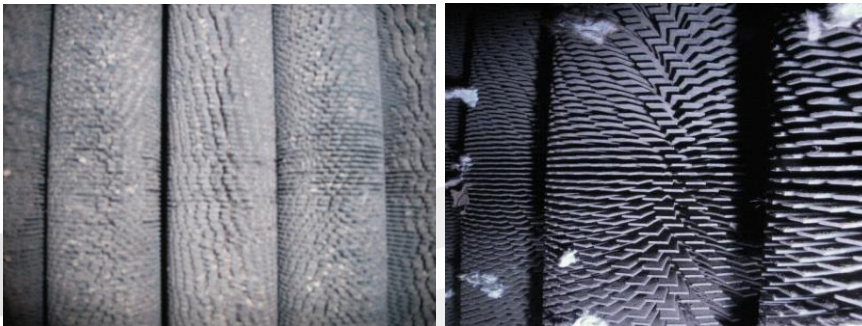
- ❑ Pressure Wave Technology can quickly and effectively clean the fin tubes in HRSG boilers
- ❑ The cleaning operation is carried out much faster than conventional methods of cleaning such as CO<sub>2</sub> blasting or chemical cleaning.
- ❑ Removal of the Iron Oxide debris is simple and fast, using standard vacuumation processes.
- ❑ Pressure Wave Technology using flexible lances to access 'hard-to-reach' areas within the boiler does the job efficiently and quickly.

## TRACK RECORD

- ❑ Pressure Wave Technology has been applied successfully in over 20 HRSGs throughout Europe
- ❑ In some cases, over 6 tonnes of  $\text{Fe}_2\text{O}_3$  and sulphur compounds has been removed from the fin tubes in only 4 x 10 hour shifts
- ❑ Pressure drop across the whole boiler is reduced by 20 mbar
- ❑ Plant efficiency increased from 495MW to 660MW



**Above and Below:** The flexi-lance is lowered into the area to be cleaned, and then the pressure wave is actuated



**Above left:** Fouled fin tubes after a years' operation before cleaning  
**Above Right:** Fin tubes after cleaning using Pressure Wave Technology

