

*Hydro*FLOW®

LIMESCALE PROTECTION FOR STEAM BOILERS



HYDROPATH Technology | The home of *Hydro*FLOW®

LIMESCALE PROTECTION FOR STEAM BOILERS



The effective management of limescale is essential to the smooth operation of a steam boiler. The presence of hard scale (either calcium carbonate or formed from other minerals) in steam boilers impedes heat transfer, reducing efficiency and increasing fuel costs, and leads to additional maintenance time and costs.

HydroFLOW® electronic water conditioners offer a chemical-free approach to treating both existing and new limescale. They are an alternative to water softeners with the benefit of no ongoing replenishment costs, allowing boilers to operate on unsoftened water without the problems of hard scale.

Installation is simple, with no system modification required. HydroFLOW® units operate maintenance-free 24/7, providing maximum performance no matter the throughput.



CASE STUDY

CHEMICAL PLANT, WAPATO WASHINGTON, USA

This factory operated two large diesel steam boilers, fed with well water originally at 200ppm but brought down by a softener to 80ppm. Cleaning required a week of down-time and acid cleaning. One HydroFLOW® unit was installed on the water line to the DA tank and one HydroFLOW® unit was installed on each of the water lines feeding the steam boilers.

RESULTS

Within a few days, soft “putty” (wet calcite crystals) began washing out via blow-down, indicating the removal of existing scale. Within 2.5 months, the stack temperature decreased and fuel consumption went from 400 to 275 gallons per day, translating to \$150k savings annually (return on investment of 2-3 months). The customer decided to delay the replacement of the steam boilers.



FACILITY



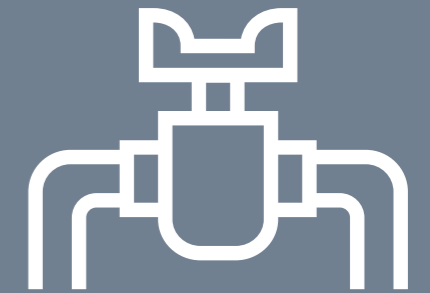
SCALE FROM BLOW DOWN

OUR CUSTOMERS SAY

“We tried HydroFLOW® in our steam boiler and it was amazing. We have our ROI within 6 months solely from the saving in fuel.” **Facilities Manager, Hong Kong Hospital**

“When our steam boiler was opened for annual maintenance after the installation of HydroFLOW® units, the old scale and debris at the bottom of the boiler were 5 times more than previous years. For sure, HydroFLOW® cleaned our 3 storeys high boiler.” **Plant Manager, Palm Oil Plantation, Indonesia**

RESULTS



WATER SOFTENER BYPASSED

STACK TEMPERATURE REDUCED FROM 340°C TO 260°C



FUEL CONSUMPTION

REDUCED 30%

DESIGNED FOR

NEW SCALING

EXISTING SCALING

FEATURES

- Suitable for all pipe materials
- Available for pipes up to 120mm as standard
- No plumbing or cutting of pipes required
- Easy retrofit – no downtime

APPROXIMATE DIMENSIONS

- 300 x 200 x 100 mm
- 3 meter cable

TYPICAL INSTALLATION LOCATION

- On the water feed to the boiler
- An additional unit may be optionally fitted to the deaeration tank/ preheater

FURTHER INFORMATION

For more detailed guidance on specification, installation or other information, please contact sales@hydropath.com or your local representative.



FROM COMBI BOILERS TO COOLING TOWERS

HydroFLOW® units are working all over the world on multiple applications, treating carbonate and non-carbonate scaling and filtration issues in a wide variety of industries. Check out our website for more information.

- **From homes to heavy industry**
- **From spas to steel mills**
- **Suitable for any pipe material**
- **From 15mm to 1500+mm OD pipe diameter**



LIMESCALE



BIOFOULING



FLOCCULATION

HYDROPATH.COM