

Boiler Trials Feedback

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Gary's company manufactures sterilisation and disinfectant equipment that use boilers to supply steam to this equipment in the Central Sterilizing Supply Departments of hospitals. Gary was introduced to **HYDROSMART** by John O'Hare the South Australian Manager for Getinge, who had installed it on his sterilizing equipment in several Hospitals and Clinics in Adelaide.

Gary has been monitoring the performance of and is currently recommending the **HYDROSMART** Water treatment System for use in the many hospitals in NSW and throughout Australia. He sees **HYDROSMART** as an enhancement of his product, by making them work more efficiently as well as delivering substantial and sustainable cost savings for hospitals by reducing maintenance and chemical requirements.

Q: Does the HYDROSMART Water Conditioner cause any changes in the TDS (Total dissolved solids) readings of the boilers?

A: When the water supply line to an existing boiler was treated by the **HYDROSMART** system the TDS readings fell. This is because no large-scale deposits were allowed to form on the internals of the boiler. In electric generators if you don't form scale in the boiler you will not create foaming in the water. This is ideal because foaming in the boiler causes wet steam, which can be drawn off to the sterilizers creating wet loads. In the past we have treated the boiler with chemicals to stop scale build up. However with the **HYDROSMART** system this treats the water without any chemicals being required.

Q: Do chemicals cause any problems?

A: Yes, several things happen. As you use chemicals to work on your TDS level the chemical gives off incondensable gases and these gases go through the pipework. As this gas is at a lower temperature than the steam and has no moisture content this can create further wetting of the steam, with the great possibility of the gas forming around an item in the sterilizer and rendering it unsterile.

Q: How does HYDROSMART help?

A: With the **HYDROSMART** water conditioning system it is not necessary to use chemicals for boiler treatment. It is much easier because there will not be any scale prevalent in the boiler to create foam and as there are no chemicals required for use, there will be no incondensable gases formed. As you say the only scale allowed to form is up to 4 microns in size. As this would not be of any weight it would be easily removed when the boiler is blown down. Also as your water feed line is being treated this line is kept clear saving possible pump problems from occurring. It also means the probe pockets remain clear and do not get blocked up with scale, thus saving further maintenance.

Q: Does the scale affect the probe readings?

A: Yes if the scale gets around the float of the probe it can't sense if the water is there, giving the possibility of burning out your elements. The critical factor is to keep this clean. In the old days we went to treatment but now this shouldn't be necessary. I am very confident with what we have seen so far. At one of our installations we saw on an existing steam generator that had a 7-year build up of scale. After fitting **HYDROSMART**, we saw dramatic shifts, up and down, of the TDS levels, as the sheets of the existing scale, lifted off the insides of the boiler.

This scale build up was impregnated with excessive chemical treatment. This was the reason for the varying TDS levels. We also found a considerable amount of incondensable gases was being let off by this impregnated scale.

The above showed that the **HYDROSMART** unit worked very well on existing installations as it immediately started to clean up the scale, already formed and does not allow any to reform.

Q: Is it cost saving?

A: Most definitely. Chemicals will no longer have to be used for descaling and downtime and maintenance costs will be dramatically reduced.

Q: Have you had any other feedback?

A: Hospitals who have seen the results of **HYDROSMART** are now extremely active in looking at what we've found. We are looking very closely at the downside, but we haven't found one!! We want to check that the treated water doesn't attack anything inside the generator or plant equipment. So far it hasn't.

We've found that **HYDROSMART** also lends itself to tunnel washers, rack conveyor washers and washer disinfectors.