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Better prevent than cure

Lime scale is the most common problem to the water heaters. Scaling appears in the tank of DHW, but mostly around the immersed heater of the primary circuit.

RESULTS

- Money and Energy is wasted since scaling hinders the heat transfer to the DHW. Consequently a layer of lime increases the energy consumption required to provide a certain volume of water at the required temperature.
- Parts of the pipe surfaces to the heaters are detached and then the heater has to be replaced.

Why does it have to come to that ?



Figure : Water Heater with a Heat Exchanger heated by steam

Better prevent than cure

PREVENTION

- The ideal solution to prevent lime scale build up is using a Water Treatment Module (WATER SOFTENER). This solution might be very expensive when large quantities of DHW are needed, but it can be a perfect solution when a water treatment module already exists and the DHW quantities needed can be covered. **Application field** : Industry
- Otherwise a periodically cleaning program must be followed. The cleaning openings must be removed as well as the immersed heater(s).
- If salts are still soft, then cleaning with hot water in pressure might be enough. If salts are tough and can not be removed only by hot water in pressure, then a chemical cleaning is the best solution.

CAUTION : Chemical Cleaning must be carried out only by expert personnel.

- When the fluid passing through an immersed heater is steam then the pressure should not exceed 3-4 bar-g. High pressures επιτείνουν lime-scale build up. In case the steam produced by the steam generator is in higher pressure, a steam pressure reducer must be installed before the heat exchanger.

ACCESSORIES

- Heat exchangers (Carbon steel, Stainless steel, Copper pipes)
- Gasket for flange plates

