

McCain Fries Factory



Lewedorp, Zeeland The Netherlands

In 2009 Maimtec installed a number of Hydroflow units to protect the hot water system of the McCain potato chips (Fries) factory in the city of Lewedorp in Zeeland Province, in the south of Holland.

This hot water system was working on very high temperatures of ca. 80°C, and to save energy they circulated this 80°C hot water all the time.

Because of the high temperature, the system scaled up very quickly and required various measures to maintain the production process, including servicing the pumps every 500 working hours, acid cleaning of parts of the system 1-2 times a year, etc.....

Initial results and problems with existing scale

After installing the Hydroflow units in 2009 Maimtec had warned the client that because of the nature of the system and the number of Hydroflow units we have installed, they will face a lot of scale that will be released by the working of the Hydroflow units, as it acted to dissolve the existing scale in the system.

This is exactly what had happened and unfortunately led to a number of complaints from towards Maimtec over the functioning of the Hydroflow units. Maimtec explained that this result actually showed that the Hydroflow units were operating as expected – the existing scale was coming loose from the pipes and circulating in the system. Maimtec advised the client to install a filter to take out this scale, but it got blocked very rapidly and didn't function adequately.

Follow up results

Despite the customer's misgivings, over the years the hot water system got cleaned up by the Hydroflow units and after 2-3 years the results were clear. According to their standard protocol they should perform a maintenance treatment on the high pressure piston pumps every 500 working hours but they could reduce this to every 1500 working hours. At least 2 times a year, during the December and summer vacations, they used to flush the problematic parts of the scaled system with acid. Since 2011-2012 they have not performed any acid cleans – a reduction of at least 6 times!

On 2013 the McCain took over a big chip factory in Belgium LUTOSA SA. They planned on enlarging the factory, a process that is still ongoing. During the planning stage they identified the need to combat the scale problems in the production process.

The engineering bureau that worked with McCain in Holland is doing all plans for the new location. The engineer asked the executive manager of McCain Lewedorp to write a report describing their 5-6 years' experience with the treatment using the Hydroflow units in Lewedorp.

The report is reproduced below:

Since we have installed the Hydroflow units in 2009 the maintenance intervals of the high pressure piston pumps went from 1 service interval in 500 working hours to 1 service interval in 1500 working hours. Usually in this service all the pistons need to be reconstructed due to the scale...

It's not that we have no scale anymore but it is no longer "stone" fixed all over.

Also the warm water tank of 100m³ was always a source of irritation because the removal of the existing limescale was associated with a lot of trouble.

I can admit that there is still a considerable lime layer on the tank wall but it's very grainy in texture and according to me is not nearly as solid as before.

According to me if I will empty this tank on a cold winter weekend there will be a mountain of limestone on the bottom of the tank that should to be taken away.

The filling of this hot water tank goes through a condenser of the steam boiler and via a plate heat exchanger of the WKK, this circuit had in the past its problems with lime and was then rinsed during a summer stop with acid.

This is already back in 2011 or 2012 since it was last done.

I'm not sure but I guess that in the past it was more often discussed than is currently the case.

Look, I'm not going to declare the Maimtec units miraculous... but I cannot otherwise explain why this has all changed in our favor.

I know that it took a considerable time before this effect was visible to us. We also never had any problem with these things.

In other words, I see a clear positive effect but only cannot explain it well, maybe once again take up contact with Mr. Nahum Pelled.

If you need it, I have his phone no.

Best regards, xxx

Following this, Maimtec received an email regarding the purchasing of more units for this newly – extended factory.

Hi Nahum,

A few years ago we installed a number of Hydroflow units in McCain factory in Lewedorp. We were sceptical for a long time but now it looks like that these Hydroflow units have a good effect. McCain has now a new project in Lutosa in Leuze-en-Hainaut in Belgium. Lutosa is now a daughter comp. Of McCain and we would like to equip Hydroflow units in Lutosa against the scale problems.

Let me see please your advice for this project.

Thanks a lot and best regards,

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