

Wastewater odor problem solved by Landia aeration system

A Landia AirJet mixer that solved an odor problem at one of California's oldest independent dairies, is close to completing a full five years of uninterrupted service.

At the Hollandia Dairy (established 1950) in north San Diego County, a side-entry mixer (from a different manufacturer) was failing to prevent build-up of odorous septic sludge in a 35,000-gallon bolted steel equalization tank (18.5 ft. in diameter x 18.75 ft. in height).

- Our old side-entry mixer just wasn't mixing the tank anywhere near enough, so odors were building up. Since the humble beginnings of the Hollandia Dairy, which was created by Mr & Mrs Arie de Jong shortly after they arrived in the U S from the Netherlands, we have always endeavoured to be good neighbors, so investing in a much better mixer was a must. On several occasions we had to drain the tank to empty out the sludge, which was no fun at all – and very, very time-consuming, said Hank Van Nieuwenhuyzen, Chief Operations Officer at Hollandia Dairy

Care for environment

ES Engineering were called in to see what solution could be found. Carbon filters were introduced, but as Project Manager Christian Tasser* explains, this was only a temporary measure.

- At Hollandia's milk processing plant in San Marcos, it was clear to us immediately that this familyowned business cared about the environment and took the situation with its equalization tank very seriously. We looked at how we could best prevent the tank's contents from going septic, taking measures to reduce pH levels and see what would be best, especially for peak production times. The wastewater, including effluent from Hollandia's fruit juice manufacture didn't pose a big problem with solids content, but the existing mixing system wasn't up to the job, he said.



Hank Van Nieuwenhuyzen, Chief Operations Officer at Hollandia Dairy with Landia AirJet.

LANDIA

- a global company with roots in Denmark

Landia supplies pumping and mixing solutions for agriculture, wastewater, biogas plants and food industry applications.

We are not part of the throwaway culture. As a Danish company, we are subject to very strict national regulations on energy consumption, waste handling, and wastewater – and rightly so. Throughout our production process and beyond, we work to minimize environmental impact.

Many Landia products have been in operation for 20-25 years even though the operating conditions may be extreme. In that way, Landia customers achieve the lowest lifespan costs, while resource consumption is minimized, which further results in a positive impact on the environment.

We have been manufacturing pumps since 1933, but we are keener than ever to produce the very best solutions – and match that with unrivalled aftersales support.

As well as Denmark, we have long-established business units in the UK, the US, China, Norway, and Germany and solid representation all over the world. In order to provide the very best technical solutions, everyone involved with sale of Landia equipment has an engineering background.

We have been ISO 9001 certified since 1994.

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Looking for an instant, yet long-term solution, Christian Tasser sought to maximize the effect of the newly purchased Landia AirJet (chopper pump model MPTK-I 80) by recirculating the foul air (from the top of the tank) down through the wastewater, thereby effectively scrubbing the sulfur out of the air to eliminate the odor issues. This set-up works along similar lines to the Landia GasMix system that is increasingly being installed for mixing of Anaerobic Digesters in wastewater treatment facilities and industrial biogas plants. The Landia AirJet at Hollandia dairy was sourced through World Water Works, Inc – an innovator in the wastewater treatment industry, who also provided installation of the AirJet.

No need for chemicals

- The Landia AirJet is reliable and very effective. The capital cost isn't high, and you no longer need to add chemicals to the tank – plus there's the very big advantage of not



BY THORKILD MAAGAARD,
SALES DIRECTOR, LANDIA

needing blowers, which are very energy intensive, Christian Tasser said.

And Hollandia Dairy's Hank Van Nieuwenhuyzen added:

- Installation was easy, through an existing manway, so no additional holes were needed in the wall of our tank. And in nearly five years of operation we've not had any problems at all with the Landia AirJet - and haven't had to clean out the tank once! Our odor problems have been solved. It's been an excellent investment". ●



Landia external Airjet on tank.

*Christian Tasser now works in the wastewater treatment and renewable energy sector for Carollo Engineers and together with Khalil Kairouz, PhD a leader in Odor Control Management, they are offering engineering solutions for wastewater clients nationwide.

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Ask Landia for the next pumping or mixing solution for your wastewater or sludge application. We have a full range of submersible and dry installed solutions designed for your needs and customized to your design.

The AirJet is an externally installed aerator – ideal for tanks located on the ground – tanks made from concrete or steel.



"We have a 1,200 m³ tank aerated by a Landia Airjet that not only provides aeration, but also mixing of the tank – this way, pre-treatment of the wastewater is achieved".

Henner Schumann, frischli Milchwerke



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