

'It's a goldmine' so stop rinsing money down the drain!

Does your process water contain traces of fat ? Do you want to turn your waste water into a valuable resource?

Marc Rossel, Safety Health and Environmental Manager (SHE) manager at Aviko in Lomm, calls it a goldmine. Things are going extremely well for the potato processing company, but is it a real goldmine? Actually, the goldmine is outside and separates oil from residual process water. Aviko products thank their golden-brown colour to the oil they are fried in. But that also causes traces of oil in the residual water which places pressure on the water purification system. Waterstromen, ETEC Service & Engineering and Unica Industrial Solutions engineered a simple and efficient solution. Their cooperation also turned out to be a gilt-edged partnership.

In his role as SHE, Marc Rossel has access to a plenty of information. "That provides a wealth of background information about the rich history of the company", says Marc. "If you look back over the past 70 years, you can see what an incredible amount of change has taken place. Our production output had increased five-fold in that time, and the predominant issues now are the environment and sustainability."

No waste

Aviko aims to continually improve its processes and realise higher returns and keeps a watchful eye on sustainable and socially responsible business operations. The value of all residual streams is utilised to ensure there is no waste. Production in terms of tons of French fries has increased sharply in recent years. This increase requires a higher production capacity and close monitoring of the water purification process. Higher production also means more oil in the water purification system - presenting the company with a challenge. "The organisms that work in our water purification system don't like oil," explains Marc. "So, we create the ideal conditions to encourage the organisms to multiply so the effectiveness of the water purification system is maintained even if production volumes are higher."

What kind of oil and water separation systems are available on the market?

Aviko explored the options in cooperation with Waterstromen, the company that designed and manages the water purification system. There is a huge range of modern systems on offer. But they are based on the use of chemicals and require a lot of human intervention. ETEC Service & Engineering is one of the largest contractors for maintenance and projects at Aviko, so they were also approached for their input. "I can still remember what I proposed", says Evert Jan de Kruyf, director of ETEC. "We can make just the right thing for you together with Unica. Then you don't need to work with six different partners. If they had asked me a year earlier, I probably wouldn't have accepted the challenge. But as we had been working with Unica for a while, I had complete confidence. We know everything about implementing the system, but Unica has the expertise of processes, process calculation and automation. That allowed us to offer Aviko a single partner with experience in multiple disciplines."

Maximum results

“We first had extensive talks with Waterstromen”, continues Evert Jan. “They are the architects who designed the water purification system at Aviko in Lomm. How are the streams configured, where should we install the pipes and what was the best site for the oil separator? It had to be a simple solution that would be up and running in one go. And all that within a three-month time frame. There was no margin for a trial run.” “No Research & Development department was involved in the project”, says Twan Peeters, project manager at Unica. “The key to the ingenuity of the system is its simplicity. It is effectively a large tank of water. Water from the production plant is pumped to the tank. The heavier sediment sinks to the bottom and the oil floats on the water. A number of rubber belts rotate vertically through the tank and separate the oil from the water. As long as they continue to operate, no maintenance is required. Other solutions that use chemicals or filters have a high maintenance and replacement frequency and therefore entail high operational costs. Now Aviko works towards a maximum result with a minimum input at minimum costs. They do not burden the environment and save considerably on costs.”

“Aviko is a company with a common-sense attitude”, says Marc Rossel. “That characteristic is a seamless fit with the philosophy at ETEC and Unica. We have a production site that has expanded enormously over the years. That presents a lot of challenges. We want to be able to interact with other parties quickly and easily and so focus on cooperation with local companies. Companies that take a pragmatic approach and operate transparently and honestly. With Unica and ETEC, Aviko has certainly struck gold.”

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