

Hydro Oleochemicals Modernizes with Scalable DeltaV™ System for Present, Future Process Control Benefits

RESULTS

- Reduced maintenance costs
- Tighter process control
- Better process analyses
- Scalable platform for future process automation projects

APPLICATION

The production process has multiple steps, including continuous and batch, to make a large scale of different product qualities.

CUSTOMER

Hydro Oleochemicals in Sandefjord, southwest of Oslo, Norway is the world's leading producer of fatty acids, primarily from fish oil delivered from all over the world, annually producing 25,000 tons of fatty acids, used in a wide variety of products from tires for vehicles, to wax candles and paint. Some of the fatty acids, reacted with alcohol, create 5,000 tons a year of fatty acid esters, used by the cosmetic industry.

CHALLENGE

The plant was built in 1935 and is owned by Norsk Hydro. Previously the processes had little instrumentation and a lot of manual control. Hydro Oleochemicals set about achieving better control of four distillation columns along with other parts of the plant. At that time, says Hydro Oleochemicals' technical manager Morten Gulbrandsen, "We wanted to choose a process system which, in the long term, could cover the whole plant."

SOLUTION

Hydro Oleochemicals' evaluation ended in the purchase of the DeltaV™ digital automation system from Emerson Process Management. Operators now run the plant using the DeltaV system from three operator stations, running nearly 500 I/O.

"Important selection criteria included the desire for a large supplier we could be sure would stay in the market in the future." Furthermore, says Gulbrandsen, "the system should be easy to configure and maintain."



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Gry Langbakk

System Manager, Hydro Oleochemicals



For more information:
www.EmersonProcess.com/DeltaV



The system also had to be something the supplier was clearly committed to for future investment and development. Last but not least the system had to be built around modern technology.”

“By choosing DeltaV,” says Gulbrandsen, “we now have the ability to use fieldbus and Emerson’s PlantWeb™ field-based architecture in future, larger-scale projects. For that reason, we expect to get a better overview of our processes and achieve savings in configuration, documentation and maintenance.”

Says Hydro Oleochemicals system manager Gry Langbakk, “The new process system rapidly showed its value. We had some problems in the vacuum system, but the automatic storage of historical values (trends), alarms and events in the DeltaV system ended up being an important tool for tracing the problems. Lately we have expanded the DeltaV process system, so it also handles soap splitting and the cleaning system. Altogether we now have 6 operator stations and 3 process control stations. Fiber optic is widely used in the network to achieve the desired data distribution.”

“We now have a solid platform for future automation of our process plants.” says Langbakk, “but there is also a large unused potential in the DeltaV system as we have it today. When we start implementing the system’s full potential, we will gain further reduced maintenance costs, tighter process control and better process analyses.”

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