



Petrolia improve the production with AXXOS OEE

With an OEE-based improvement work, the lubricant manufacturer increased the availability of its production lines by 10 percent in 2 years - while improving the Delivery Precision radically.

When Petrolia hired a Lean Coordinator 2012 the first major task was to launch a pilot project with focus on production follow-up and improvement. There was no complete follow-up of production at that time and no registration of what was the reasons for disturbances.

"Of course we had a feeling, but that was not enough to base our improvement work on" says Helena Granqvist, Quality Manager & Lean Manager at Petrolia. "One of my first actions was therefore to make a pilot installation of AXXOS OEE, a system I had good experiences with from before, to get a user-friendly and easy-to-use production monitoring solution."

Petrolia has no resources in its organization working full-time with the follow-up of production. Therefore, they need to quickly access data that is easy to evaluate and use for decision making.

With AXXOS OEE, Petrolias employees get easy access to the right information whenever they need it.

About Petrolia

Petrolia manufactures crude oil and petro-chemistry products in 20 mixers. Raw materials and finished goods are stored in 75 cisterns and storage tanks.

The Stockholm facility has seven fully automated filling lines for filling of barrels; 20 liters, 5 liters, 4 liters and 1 liter. The product range, which consists of nearly 300 different products, includes everything from engines, transmissions, and hydraulic oil to various specialty oils.

The company has a total of 50 employees in two facilities; one in Loudden in Stockholm harbor and the other one in Söderfors Gävle. Stockholm has 7 fully automated filling lines and the plant in Söderfors has 5 blow molding production lines that manufacture packaging for 75% of Petrolia's own needs.

Pilot project

Early 2013, the decision was made to make a pilot installation of AXXOS OEE on two of the company's seven fully automatic filling lines in Stockholm. Petrolia decided to focus on simplicity during the first year of operating AXXOS OEE. The number of different stop codes was kept to a minimum and only the stops longer than 10 minutes required coding.

It was obvious to Petrolia after only six months that they should start monitoring the entire production. AXXOS OEE was then installed at the other five filling lines in Stockholm and in 2015, AXXOS OEE was implemented on 5 additional production lines for bottle blowing in Petrolia's facility outside Gävle.

Challenges

The installation of the system went smoothly. Petrolia's skilled technicians did the electrical installation and the project was launched and completed by AXXOS within just a few days. The challenges for Petrolia in the interim were more focused on developing an improvement strategy rather than implementing the system.

"AXXOS OEE is a very important part of our work with implementing Lean in the company. We get so much information from the system. With AXXOS OEE, we have developed a culture that highlights deviations instead of hiding them", says Helena Granqvist.

Advantages / Results

In two years Petrolia has managed to improve the availability of their production lines with nearly 10%. Additionally, the company has had tremendous development in terms of delivery performance. 2015 delivery precision was at 99.2%, which exceeded their goal.

"AXXOS gives us a unique opportunity to easily follow up production both in terms of machine utilization and disturbances. Daily reports in my mailbox shows directly how the production is running", says Kjell Stördal, Production Manager at Petrolia.

AXXOS OEE in the improvement work

With AXXOS OEE, Petrolia's employees get easy access the right information when they need it. Each employee is part of an improvement team and we continuously measure the number of improvements implemented.

Since the installation of AXXOS OEE, Petrolia have acquired a good overview of the various parts of



Helena Granqvist och Kjell Stördal, Petrolia

production and what the stop causes are. Since the installation they have enjoyed a steady rise in machine utilization.

"Today, the main focus in the company is continuous improvements. We believe in taking small steps forward all the time; constantly measuring and improving. We see the results of this when we follow up machine utilization. The trend is clearly positive", concludes Helena Granqvist.

Example of improvement work

AXXOS OEE showed Petrolia that one of the filling lines worked well during long runs with 75-80 % machine utilization. During periods with many changeovers, the utilization rate fell to 45-50%. Upon further analysis, it turned out that 30% of the total stop causes consisted of set-up times and short stop, for fine adjustments after changeovers.

Petrolia conducted three day improvement workshop with a cross-functional team focusing on shortening the setup time and reducing the number of short stops. As a result of the workshop Petrolia reduced the set-up of the machines from 60 to 27 minutes and to reduce the number of short stops.

AXXOS Solution at Petrolia

- ▶ AXXOS OEE Client
- ▶ AXXOS Integrator (ERP)
- ▶ AXXOS Operator Tasks (Operator Maintenance)

AXXOS has delivered systems for production monitoring, AXXOS OEE for almost 20 years. We help our customers streamline their production by packaging our experience in OEE-systems, LEAN-training and coaching in improvement. AXXOS is part of API Group, supplying software for reliable and efficient production to 900 customers in 50 countries.