

Sustainable solutions through process automation

Plant optimisation in the dairy industry for increased sustainability.

Since the 2016 release of the UN Sustainable Development Goals, the focus on corporate sustainability has increased significantly.

Demands from the dairy industry are ever increasing and sustainability in the solutions from suppliers is a focus point getting more and more attention in the requirements. Process solutions today are strictly validated against KPIs when it comes to consumption per SKU on water, electricity, chemicals for cleaning etc.

This focus is - by coincidence - happening in the same period as new technologies and smart solutions are merging as part of the

Industry 4.0/Digitalisation wave. These new technologies offer a toolbox to help the efficiency of optimisation, operation and maintenance, all supporting sustainability targets in the solution.

Objectives derived from this are e.g.:

- CIP data analysis tools, securing minimum usage of chemicals, water, cleaning time.
- Data analysis tools for OEE calculations help to improve line efficiency.
- Smart in-line analytical instruments for optimising on product tolerances.
- Smart application software enabling e.g. hibernate functionality in the process equipment.
- 24/7 remote support to ensure less downtime.

Below are a few examples of solutions supporting the sustainability targets in today's process automation systems:

CIP data analysis tool

Au2mate has, in cooperation with the cleaning agent company Novadan®, developed a CIP data analysis module continuously monitoring the behaviour in the CIP plant. This "Advanced Data Analysis" application automatically monitors CIP forward and return values (temperature, conductivity, flowrate)

Proactive partner

Moving forward, Au2mate strives to be a proactive partner in the constant optimisation of the dairies.

In case more information on applications or methods mentioned above is desired, please do not hesitate to contact us at www.au2mate.dk or by telephone +45 8720 5050.

and when paired with the CIP sequence program steps and timers, automatic analysis on each CIP object is performed by the software.

For each CIP route/object the application will create reports providing an intuitive graphical dashboard with indication of deviations, warnings, and critical alarms, all guiding the dairy staff to trim and adjust on recipe and equipment parameters, optimising on effectiveness, environment, quality, and cost.

Data analysis for OEE

Applying OEE on process and filling line equipment is today almost mandatory in new installations. The OEE tools provide a unique insight on plant performance and utilisation enabling the production management to trim and increase efficiency and production throughput.

The OEE reporting system provides the different stakeholders with tailored reports giving valuable information such as:

- Top 10 stop reasons
- Line efficiency per shift/day/week etc.
- Waste and quarantine reports per production order
- Actual consumption of materials and products per production order

The automatic reporting back to the ERP system, saves a lot of manual labour time documenting the same in traditional log sheets.

The Au2mate OEE module has been well received by our clients and at present more than 40 installations are now running in e.g. dairy, pharmaceutical and ingredient industries.

Benefits by utilising latest technologies

Au2mate has a great track record in applying these improved methodologies in the ap-



plication software and has experienced that plant performance and utilisation of production equipment can be improved even without changing anything in the mechanical configuration of the plant.

In one of these upgrades the following verified cost reductions were achieved:

- 20% on electricity
- 20% on steam
- 20% on ice water
- 30% on water
- 30% on chemicals

The reduction in utility consumptions generated by such software upgrades is both a benefit to the environment and furthermore ensures the plant owners savings in the production cost.

Remote support 24/7

In case of breakdown in the production facilities, it is crucial to have access to fast and professional support.

Au2mate's 24/7 HOTLINE service team helps our customers all over the world to

Examples of Au2mate 24/7 service calls from customers around the world:

“Our pasteuriser is stuck in step “CIP not completed”.”
SWEDEN

“We cannot start production to mixer tank.”
NORWAY

“We cannot QA the silos and buffer tanks...”
UK

“Dryer won't start...”
AUSTRALIA

“After service stop the plant will not start again...”
DENMARK

achieve the best possible uptime. During the Covid-19 crises, it has become even more important for production sites to have a remote support setup for immediate troubleshooting and support.

With perishable products in tanks & lines obviously time is key when emergencies occur. This is for economical but also environmental reasons!

Typical support cases can be to inform technicians on the location of sudden hardware faults (pump, sensor, valve etc.) or it could be assistance for operators to change parameters or “step the program”, to get back on track after a mishap.

Throughout Covid-19 in 2020, Au2mate has assisted our clients in 890 calls received on the 24/7 Hotline Support number.

AU2MATE

24/7 HOTLINE SERVICE
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Au2mate

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