

How the advanced CORE control helped Progra to increase their yields and throughput for their dry rendering line

CHALLENGE

Progra has been selling and dealing with high quality plant and animal-based oils and fats for decades.

In their rendering processes, Progra were experiencing the following issues:

- Variations in the residual moisture and thus in meal quality due to large variations in the discharge temperature from the cookers.
- Further variations in product quality caused by large variations in press amperage.
- Reduced throughput and capacity.
- Need for constant manual control on the infeed to the presses.

Therefore, Progra searched for new technologies to improve their rendering processes and make them more sustainable and stable.

SOLUTION

In 2017, Progra chose CORE's Advanced Process Control package as their preferred solution for their cookers and presses. The processes were optimized, and a more stable production was achieved. This has allowed Progra to improve their yield, quality, energy efficiency and throughput.

RESULTS

After implementing the advanced CORE controllers in their production, Progra has achieved:

- **4 %** increase in capacity
- **5 %** increase in fat yield
- **3 %** increase in meal yield
- **Improved maintenance** due to more stable operation of equipment
- **270.000 Euro/year** in total gains

Industry

- Animal by-products, Porcine

Process optimized

- Dry Rendering
- 1 Cooker
- 3 Presses

Country

- Belgium

Company

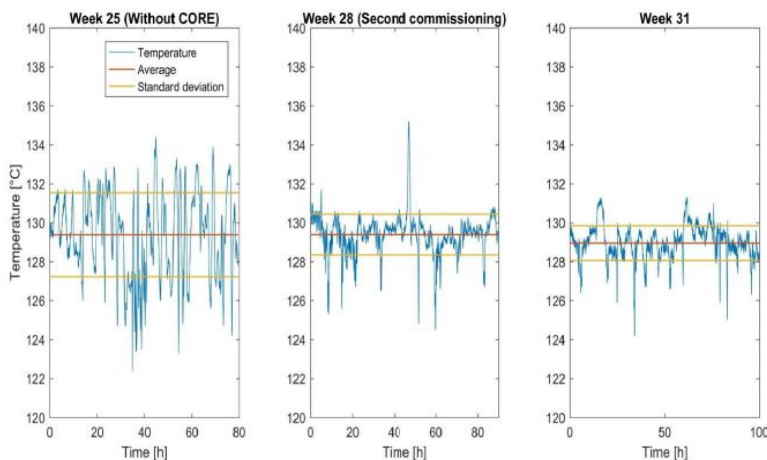
- Progra

"We never reach the same high throughput manually as we do now using advanced CORE controllers. We have significantly increased capacity without loss of quality. Even more important than the increased capacity is the knowledge that we can rely on the CORE controllers what brings calmness and tranquility to the workplace."

- Hans Hoedemakers
PROGRA bvba

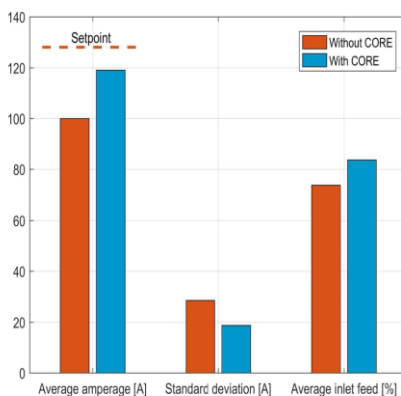
STORY DETAILS

The trend graphs in Figure 1 show that the temperature variations have been reduced by 50%. CORE controls inlet, outlet and steam pressure in order to stabilize exit temperature and increase the outlet speed of the cooker thereby increasing throughput.



Cooker - Discharge temperature variations reduced by 50%.

On the presses, too low amperage leads to poor pressing. With CORE control of the inlet feed, Progra has achieved a better filling of the presses and an improved press amperage.



Press - Variation of amperage reduced by 30%.

In summary, the cooking and press processes have been improved with lower variations allowing for a higher energy efficiency, reduced variations in quality and a higher throughput.

About CORE A/S

The DNA of CORE is about stable sustainable savings. We are focused on optimizing your energy efficiency, yield, product quality, capacity, reducing the level of your investment and increasing your profit. We deliver the world's most sophisticated advanced self-learning controllers, which within a few years have spread across the globe based on the significant savings CORE has provided, especially to the industry for animal by-products and fish processing. A partnership with Haarslev Industries was established in 2016.

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After their first CORE installation, Progra has continued to take advantage of CORE's optimization package. In 2020, Progra is installing CORE control for a new cooker.

CORE BUSINESS VALUES

Advanced Process Control

- Improved stability
- Consistent quality of the final product
- Higher throughput, capacity and yield
- Reduced energy costs
- Reduced maintenance

CORE SERVICES AVAILABLE

CORE's optimization package

- Remote support
- Controller monitoring
- Optimization
- Visualization
- On-site visits
- Examination reports

CORE