



# Advanced CORE control brings stability and increase yields and throughput in a CAT 3 dry rendering line

## CHALLENGE

One of the big providers in France in the rendering industry has a well-connected network with several production facilities for by-products processing as well as transportation services. Due to their plants and distribution chain they cover more than 75% of France, offering a very responsive collection of material while avoiding environmental impacts on the rendering chain.

Focused on the highest quality products for animal by-products processing applications, reliability and performance are critical. Therefore the company decided to search for methods giving more sustainable and stable processes. They were experiencing:

- Variations in the residual moisture and thus in meal quality due to large variations in the discharge temperature from the cookers.
- Further variations in feed speed and discharge speed, with a reduced throughput.
- Level variations in the cooker and not running at the optimum level.

## SOLUTION

In 2017, the customer explored new technologies in the market and was introduced to CORE's Advanced Process Control (APC) package. Implementation for their cooker began, optimizing their processes and achieving a more stable production. This has allowed impressive improvements in their yield, quality and throughput.

## RESULTS

After adding CORE APC to their operation, the customer achieved:

- **15 %** increase in average discharge
- **20 %** lower variations in discharge temperature, fewer discharge stops
- **4 %** increase in yield
- **3 months** pay back period

### Industry

- Poultry, Chicken

### Process optimized

- Dry Rendering
- 1 Cooker

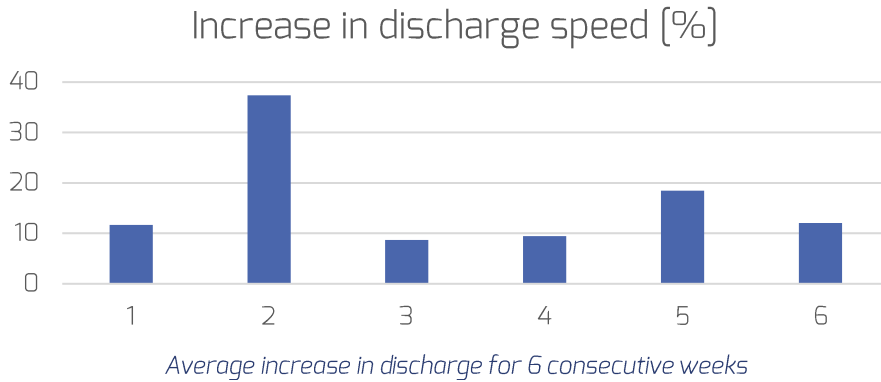
### Country

- France

*With CORE, the customer achieved a ROI value of more than 3 times the expected. CORE APC was an important game changer for their processing chain and they have been using the CORE control now for more than 3 years on 100% of their operation time. CORE continues to bring quality and additional revenues to their business.*

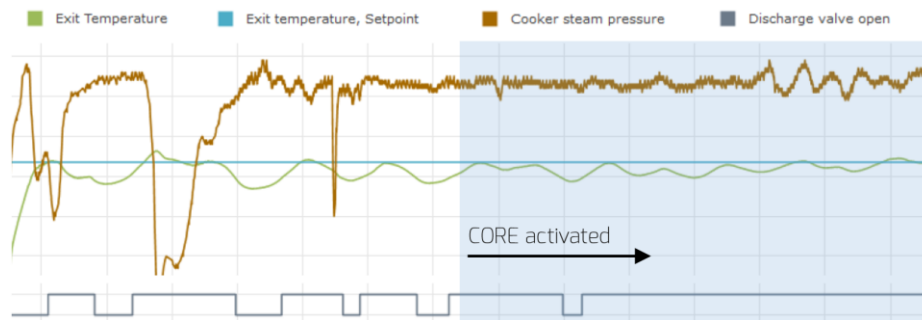
## STORY DETAILS

The figure below shows the observed increase in discharge speed comparing the discharge when the CORE cooker controller is running with the discharge when the CORE controller is switched off.



Due to a faster and more stable discharge speed, the processing line now has a higher throughput, and at the same time discharge stops are avoided.

Switching on the CORE controller, the temperature variations decrease. An example is shown below – the need for drastic changes in steam pressure (3 events in brown) is no longer there and the discharge valve is not shut as frequently.



CORE controller is switched on - and temperature variations decrease.

In summary, the cooking process has been improved with lower temperature variations allowing for higher throughput, higher yields of meal and fat, and substantially reduced variations in quality.

### 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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### 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