

# Core Advanced Controllers helped Advanced Proteins improve their energy efficiency

## CHALLENGE

Advanced Proteins (AP) is the largest single site animal by-product and pet food ingredient supplier in the UK. AP provides customers with legally compliant, cost effective solutions that reduce the environmental impact of wastes by converting them into stable, usable materials.

The Category 1 conditioning plant produces a high quality fuel grade biomass product for several major industrial renewable energy facilities within the United Kingdom. In order to improve their processes, AP decided to look for ways to make their current processes more sustainable and stable. Among their observations, they wanted to:

- Reduce the large variations in their heating and drying process
- Reduce the energy consumption
- Improve throughput and capacity

## SOLUTION

AP, former Pointon and Sons, chose in 2018 to acquire CORE's Advanced Process Control (APC) package. In order to ensure a stable process and to save energy an automated advanced controller CORE-DDRY was implemented on two high temperature cookers with the goal to substantially reduce the variations experienced for the cookers exit temperature.

## RESULTS

After adding CORE APC to the their operation, AP (Pointon and Sons) achieved:

- **50 %** reduction in temperature variations
- **20 %** reduction in steam pressure variations
- **6 %** steam savings
- **10 %** increase in throughput

### Industry

- Meat and Bone Meal

### Process optimized

- Dry Rendering
- Cat 1
- 2 cookers

### Country

- United Kingdom

### Company

- Advanced Proteins  
(Formerly operating as John Pointon and Sons Ltd)



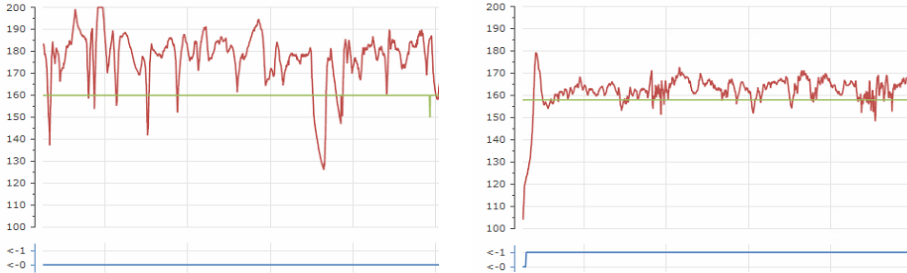
*Reduce your carbon footprint!*

*“Every year, the CORE controllers at Advanced Proteins save us more than 6000 MWh in energy and the environment from 1500 tonnes of CO2!”*

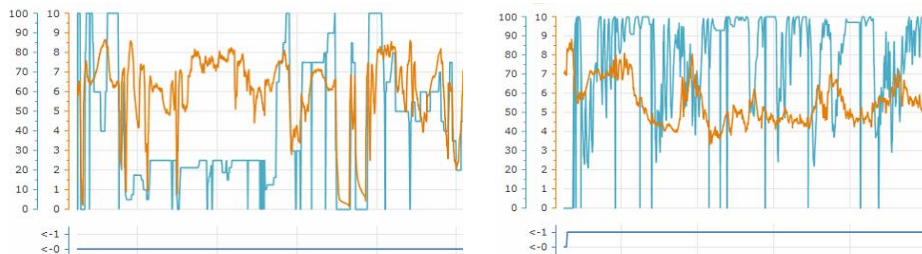
**- Barney Williams**  
Technical & Operations Director

## STORY DETAILS

The 48 hours trend curves below illustrate some of the results obtained by the implementation of the advanced CORE controllers on two high temperature cookers.



*Cooker - Discharge temperature over 48 hours.  
Left: Without CORE control. Right: With CORE control.  
Variations were reduced by 50% and the average temperature  
was lowered 16°C, reducing the energy consumption.*



*Cooker - Discharge speed (blue) and Steam pressure (orange) variations over 48 hours.  
Left: Without CORE control. Right: With CORE control.  
The average throughput was increased by 10%.  
The average steam pressure variations were reduced by 20%.  
Higher throughput and lower energy consumption was achieved.*

### 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.

**CORE A/S**  <https://www.coreas.dk/>

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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