

CASE STUDY **FOOD PROCESSING**

Pea Processing Plant

Detectronic has specified and installed an area velocity flow monitor to deliver accurate and cost saving trade effluent monitoring at a UK pea processing plant.

Pea season lasts just three months so having accurate process discharge data is critical to the annual profitability of this type of business. Pea processing facilities will operate

24 hours a day during pea season so it's imperative that everything, including the process effluent, runs as smoothly as possible.

INDUSTRY

Food Processing

PRODUCTS & SERVICES

Detectronic MSFM flow meter
Multi-Channel Data Logger

OBJECTIVES

- Deliver highly accurate trade effluent monitoring
- Gather reliable and robust process discharge data to inform effective trade effluent monitoring

PLANNING

Most pea-processing plants will incorporate a trade effluent monitoring station of some type. In this case, after several visits to this particular site, we specified and installed a Detectronic MSFM Flow measurement system.

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PLANNING AND IMPLEMENTATION

Designed for open channel flow monitoring and using advanced Ultrasonic technology, the monitor is able to directly measure fluid velocity and fluid depth which are then combined to deliver accurate volumetric data.



ANALYSIS AND REPORTING

With various interface options and parameter logging including pH and temperature, the MSFM system provides a platform which supports remote data acquisition enabling Detectronic's data centre systems and analysts to supply up-to-date information and deliver detailed management reports. These reports include specific additional information required for compliance, quality analysis and process efficiency.

Food processing usually requires large volumes of water. As part of this particular process, the peas are shelled, blanched and quickly frozen with much of the water used in each of these processes ultimately ending up in the main trunk sewer of the local water and sewerage company.

The plant's owners are charged for their volume trade effluent so it's imperative to fully understand exactly how much effluent the plant is creating. Bills for large pea-processing plants are expensive so it's vital that the operations team has robust data which could potentially save big sums of money each year.

Another issue pea processors must take into account is the fact that pea processing creates hydrogen sulphide which, when mixed with water, creates sulphuric acid. This can attack and destroy sewers over time and could result in a company having to pay for sewer repairs or, in a worst-case scenario, for a collapsed sewer to be rebuilt.

RESULTS

Since installing the monitor, Detectronic has been able to provide effective, robust data which is helping the company to save money on trade effluent bills and ensure full compliance.



To learn more about Detectronic, get in touch:

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