

Industrial team helps meat processing facility expand capacity and manage more sludge

Project profile

Objective

A Bristol meat processor wanted to expand capacity, and needed an upgrade on its conventional centrifuges in order to cope with the additional sludge produced.

Solution

The Hydro International industrial team consulted with the engineer appointed to design the solution and enabled the specification of a screw press sludge dewatering system that met the facility's specific technical requirements and business objectives.

Situation

The client is a livestock farm and meat processing business with a major facility near Bristol, UK.

The site produces pork, sausages, bacon and other cured and processed meats for sale to businesses, retail consumers, caterers and wholesalers in the UK as well as in export markets.

Facing increased demand, the site needed to increase its capacity from 2,000 to 8,000 pigs per week, so the facilities required a significant expansion and refurbishment project.

A critical aspect of that project was an upgraded sludge dewatering system, which was required to manage the additional sludge that would be generated by the increased volume of operation.

Problem

The company had been using conventional centrifuges to dewater sludge generated by existing processing activities.

Centrifuges, however, are typically costly to run and difficult to maintain. This resulted in a sludge dewatering process that was overcomplicated and not cost-optimised.

Product profile

Industrial screw press with solutions-focused consultancy

IEA Screw Press

- Enhanced sludge dewatering
- Able to handle a range of biological and digested sludge
- Outputs dewatered sludge for easy handling and disposal

The expansion of the processing facility meant that continuing with centrifuges was not a realistic option—existing equipment would not be able to cope with increased throughput, while scaling up the centrifuge capacity would increase operations and maintenance costs to an unacceptable level.

Solution

The company approached a specialist wastewater treatment design and engineering consultancy and engaged them to address the site expansion project.

The engineering consultancy developed a turnkey system for the expansion, and at the client's request incorporated the **IEA screw press** as the sludge dewatering solution.

The IEA screw press is a high-quality, durable sludge dewatering system that is considerably easier to operate than a centrifuge, and has lower operating costs. It is able to provide continuous, reliable operation while managing a higher throughput of sludge.

Hydro International's Simon Light, Chris Strange and the **UK Wastewater Services team** worked with the lead consultant engineer to provide

technical assistance and installation guidance and support.

Simon, Chris and the team ensured that adequate safety measures were in place around the unit, and that input valves were fully enclosed.

The UK Wastewater Services team also added safety interlocks to the access hatches to provide additional safety for operators and maintenance teams during servicing and maintenance procedures.

Outcome

The IEA screw press was installed in July 2019, and has since been effectively handling the increased quantities of sludge.

According to operators the system is functioning well and has been integrated seamlessly into the site's plant-wide control system.

As the first IEA screw press in the UK food and beverage industry, the installation also represents a milestone in effective sludge management.

“The most important aspect of the project was that the equipment was able to successfully deal with the increased quantity of sludge and still provide reliable dewatering,” said Louisa Mafeld, Europe Industrial Business Development Manager for Hydro International.

“No less important, however is the work that our UK Wastewater Services team did in customising the installation to ensure that operators and maintenance teams can inspect, service and maintain the new unit with complete confidence. Every site is different, so that expert input was essential for the safe and effective operation of the system.”



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