Feeding & transferring product slurry

A food waste processing site in East Yorkshire was experiencing great difficulties and expense with the pumping system for feeding product slurry into their system and transferring the sludge-like fluid between the digestion tanks..

VERDERHUS®

The rotary lobe pumps which had been installed previously, had been suffering wear after just 200 hours. The pump speed was raised to compensate for the shortfall in throughput, however this increased the energy consumption and the wear rate.

As a result of the rotary lobe pump not being effective in cost or operation, it was replaced with a Verderhus screw channel pump to feed product at the start of the process.

The pump performed so well it was then installed into the more difficult application of the product transfer between the cooker at 70oc and product centrifuge. This is the final part of the process where the solids, oil and water parts are seperated in the 3-stage centrifuge. The fluid also has gaseous content.

So far, the Verderhus has to handle this very difficult to pump media at 6m3 p/hour for 600 hours with little sign of wear. When the abrasive media does eventually take effect and wear, the impeller/cone clearance can be reduced by a series of washers. This can be adjusted up to 3 times.

The pump was praised for its ability to handle abrasive media and the multitude of debris that had entered the process from the diverse range of food product that had been delivered to the site including broken ceramic and metal particles.

The Verderhus has been installed without incident for several months, outlasting the rotary lobe pump, which had not lasted for more than 2 weeks without failing.

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