Food & Beverage

Application Data No. 141 11/05

Mono[®] NOV Munches Waste Problem For 2 Sisters

The need to meet increasingly stringent environmental legislation and avoid the penalties which could result from non-compliance has led the 2 Sisters Food Group to install a Mono Series 'A' Muncher at its poultry processing plant in Scunthorpe.

2 Sisters Food Group is one of the UK's largest poultry processing companies and its plant in Scunthorpe supplies chicken produce for a wide variety of food uses. In order to meet the relevant legislation from the Department for Environment, Food and Rural Affairs, covering the disposal of animal byproducts via land injection, 2 Sisters needed to ensure that the waste from its processes is reliably and consistently reduced to a particle size no more than 4mm.

Waste material from the processing operations is passed over a run-down screen from where all the screenings - mainly chicken offal and feathers with 10% dry solids - are fed via an existing Mono Merlin progressing cavity pump into a waste holding tank. From the holding tank all solids pass through the newly installed Mono Muncher which grinds the product until the required particle size is reached. Another Mono pump then transfers the reduced waste to road tankers for land injection, where it is used to provide an agricultural fertilizer.

The Mono Series 'A' Muncher offers a reliable and economical solution to the

problem of reducing food waste. It is a twin-shaft, low speed, high torque grinder which, while allowing liquids to pass through it, traps any entrained solids. These are then fed through a series of cutters, which revolve at differential speeds to pull apart, crop and shear any solids such as bones or feathers down to a small particle size.

The Muncher's integral gearbox converts its relatively low motor power into high output torque to make the Muncher extremely powerful but also energy efficient. The low revolving speed of the cutter shafts creates low cutter tip speeds, and this dramatically reduces wear rates and noise levels compared to high speed macerators.

Mono's customer TAPS Ltd of Huddersfield, originally supplied the Mono Muncher on a trial basis to ensure that it was able to fulfil all 2 Sisters' requirements. The unit features a 2.2kW electric motor and processes the waste at a 5m3 per hour. Since successfully completing the trial, the Muncher has gone on to complete its first six months of continuous, problem free, operation without incurring any maintenance costs.



Muncher:	CA203 Series 'A' Muncher
Product:	Chicken waste effluent (10% D.S.)
Capacity:	5m ³ /h
Drive:	2.2kW motor



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