

CASE STUDY

Rotoshear®
Claxton Poultry



Efficient, maintenance-free feather screening

Challenge

Lightweight and floatable feathers can easily become trapped in equipment and create a maintenance nightmare for poultry processors. If not removed at the beginning of the process, the feathers must be removed at the end, usually with more difficulty.

Claxton Poultry, a major poultry processor in Claxton, Georgia, has a separate line dedicated entirely to removing feathers E from the wastewater stream. They had been using a perforated drum to screen feathers. Unfortunately, quills frequently became wedged in the perforations, and soon the screen became plugged and resembled a pincushion.

At this point, the line had to be shut down and the screen cleaned. If the line was not stopped, the feathers would float downstream and clog pumps and other mechanical equipment. Once feathers escaped into a DAF or clarifier, they could upset the entire waste treatment system. In addition, removing the floating feathers was a laborious, maintenance-intensive job.

Solution

Claxton selected a Rotoshear screen, Model HRS60120 x .030" (.75 mm) to replace the perforated drum screen. The Rotoshear® screen is designed to handle stringy materials

without blinding. Feathers are captured on the surface of the screen and removed to protect downstream processes. works automatically without constant operator supervision.

Once installed, the screen improved the efficiency of the process. Feathers were caught on the surface of the wedgewire rather than in it! Diverters moved the feathers along the length of the screening cylinder, allowing free drainage as they travel. The drier by-product became more valuable for rendering.

Challenge

The Rotoshear® screen helped improve the entire process. The feather screen no longer looked like a pincushion. It eliminated screen blinding and overflow. The line feeding the DAF no longer clogged. Downtime was eliminated and the process became automatic and more efficient. As a residual benefit, feathers screened by the Rotoshear® unit were quite dry and required less cooking during rendering.

Claxton Poultry operates its own rendering plant adjacent to the kill plant, so the drier feathers actually increased the profitability of the plant. If Claxton had to ship the feathers, hauling costs would have decreased as well since most of the "free" water was gone and trucks would now haul mostly dry weight material. ■



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