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seepex pump eases DOA transfer

During a recent total rebuild of its Springdale, Ark. poultry processing facility, George's Inc. installed a new type of progressive cavity pump to transfer dead chickens (DOAs) from its production plant to its offal building. Founded in the late 1920s, George's Inc. sells fresh-pack, frozen-whole and cut-up USDA-inspected poultry products. Here's the story behind the new system, as related by Bud Kirk, the plant's wastewater manager.

The starting situation

Birds are trucked to the Springdale plant at an average rate of 230,000 a day. Hangers ultimately place live chickens on shackles, moving at 140 birds a minute, before they enter George's discrete process areas. During the process, DOAs were left on the conveyor and manually placed in a storage bin. At the end of each shift, the DOAs were loaded into a dumpster. They then were taken by forklift to the offal building and dumped onto a screening system with other by-products for further processing.

But certain problems were inherent with the dumpster method, Kirk says, such as the frequent damage to equipment due to operator error. This, in turn, also resulted in structural damage to the offal building and dumpster. And there were other expenses, such as maintaining the forklift.

In retrospect, the company benefitted from the physical restrictions that precluded use of the dumpster during the rebuild, although not initially. Operators had to transfer the DOAs by wheelbarrow approximately 400 feet between the two buildings. "Not only was this method highly labor-intensive, it was also a major safety hazard," Kirk says. "The operators had to push the wheelbarrows, which hold approximately 20 chickens, past the forklift off-loading area and across a wide, high-traffic shipping/receiving roadway.

The solution

After installing a seepex BTM range pump the DOA chicken transfer operation at George's now proceeds smoothly and efficiently. Now, however, the birds are pumped as the end of a routine work breakabout every two to three hours. At this time, an operator starts the pump and then begins dropping the birds down an arm's-length, stainless steel safety chute designed to feed the pump's rotating auger.

The benefit

Compared to vacuum system, which operated 24 hours a day, the new pump runs about two hours a shift, two hours a day, five to six days a week, 52 weeks a year - compared to a vacuum system's 24hours-a-day operation. Likewise, while the seepex unit is driven by a five-HP motor, the vacuum conveyor system requires a 25-HP motor; based on the cost of \$0.05 kwh, the pump is saving about \$17,000 a year in electricity.





The new pump replaces the manual transport of chicken and eases the personnel's work.



Patented cutting unit within the BTM range pump.

Key Facts

- Service friendly
- Cleaner working environment
- Better working conditions

Significant Cost Savings

- Production capacity increased
- Less than 12 month capital
- payback
- Energy saving



Installed Pump Type

Range BTM