

case study

LAKOS Filtration Saves Snack Company Time, Oil, and Money

While Keeping Chips Fresh and Delicious

Application: Deep frying process at a large snack foods (chip) manufacturer

Solids: Crumbs and fines from the frying of vegetables for vegetable chip products

Liquid: Cooking oil

Problem: Snack food companies want their food to be fresh, crisp, and full of flavor while using as little cooking oil as possible. This proved to be quite a challenge for one of the largest snack food manufacturers on the east coast of the USA -- their highly successful line of specialty chips weren't tasting quite right and production time was longer than desired. They were also experiencing numerous problems with their vegetable cooking oils used during the frying process.

For one, the drain basket housings had to be cleaned constantly, not only costing time and money, but also increasing safety risks for employees. The manufacturer was cleaning the housings an average of once an hour at a cost of \$25 per cleaning. Running an average of 16 hours a day, this added up to \$400 per day in maintenance costs alone (\$2400 per 6-day work week).

In addition to this costly maintenance, they were not completely happy with the quality of the chips, especially when using cooking oil for repeated production runs. The plant manager kept asking the question:

“How do we get the oil to last longer and with no noticeable drop in chip appearance or taste?”

The plant manager made numerous inquiries to other similar snack food plants, as well as visiting SnaxPo (The Snack Food Association yearly conference and exhibit) and then went on to contact LAKOS Filtration Solutions, after hearing many other examples of their success.



The LAKOS CSX separators cut labor costs in half, saving the snack food company over \$60,000 annually.



Solution: The local LAKOS Distributor (Tower Sales) and LAKOS factory representatives met with the manufacturer to discuss ways to reduce oil usage and employee risk while improving product quality. It was decided that the best choice was to purchase a LAKOS test unit, and after weeks of testing with favorable results, the company moved forward with the purchase of eight (8) LAKOS CSX Cooking Oil Separators, one for each of their eight fryers. The new process consists of the separators removing the crumbs and fines, and continuously purging them into dual solids collection vessels.

Results: Separating the crumb load with the LAKOS CSX separators and removing them from the existing cooking oil has been a huge advantage for the snack food manufacturer. The LAKOS solution has extended the useful life of the cooking oil and produced a better tasting product. This has reduced the number of customer complaints of product quality. But the amazing results didn't stop with the food quality.

By separating the crumbs and consolidating the crumb load into solids collection vessels, it has decreased the number of times the drain baskets must be removed and cleaned. That means cutting labor costs in half and reducing the risk of employee safety issues.

Return On Investment Success

Purchasing LAKOS Filtration units helped this company to improve product quality and get more chips out of a single gallon of cooking oil than ever before -- but just calculating the labor savings alone (reducing the time to change out the drain baskets previously filled with crumbs) results in the return on investment shown in the following table:

Table 1: Labor Savings From Reduction Of Manual Cleaning of Crumb Baskets					
	Cost Per Cleaning	Avg. Cleanings Per (16 hr.) Day	Daily Labor Costs	Weekly Labor Costs (6 days/week)	Yearly Labor Costs
Before LAKOS	\$25	16	\$400	\$2,400	\$124,800
After LAKOS	\$25	8	\$200	\$1,200	\$62,400
Total Annual Savings In Labor					\$62,400

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