



**Restaurant
Technologies, Inc.**

LEADER IN SMART, SAFE, SUSTAINABLE OIL
MANAGEMENT FOR THE FOOD SERVICE INDUSTRY.

The Oil Management Value Chain: ROI at Each Step

December 2012



**FOOD QUALITY
+ CONSISTENCY**



EFFICIENCY



SAFETY



CLEANLINESS



SUSTAINABILITY

For as long as anyone can remember, fried foods have been high on the list of desirable menu items for fast casual foodservice organizations. Consumers debate over the best French fries and which fish sandwich is crispiest. Restaurants have come a long way in making fried foods a healthier choice for consumers, including switching to new oil types and reducing trans fats. But in the process, ways to benefit from oil management have been mostly overlooked. In this paper, we'll examine the impact that properly managing oil can have on five key areas of the foodservice business: Efficiency, Food Quality and Consistency, Safety, Cleanliness and Sustainability. And we'll show how understanding and interacting with the value chain can make oil management more profitable.

Oil Management Made Easy

The fast casual and fast food sectors of the foodservice industry have seen significant growth over the last three years, with many planning to increase capital expenditures on renovations and new locations in the near future¹. This bodes well for the industry's long-term health. But with these plans for growth come a renewed interest in optimizing spend in existing areas, such as food costs, technology investments and staff-related expenditures.

One of the most overlooked process improvements that a restaurant can make is in oil management. In fact, properly managed oil can have a positive impact on almost every other area of the organization including business operations and finance, employee engagement and costs, and customer satisfaction.

And, while restaurant revenues are on the upswing, other factors, such as stiff competition, rising commodity prices and employee costs are driving restaurant managers to take a closer look at how oil management can provide a boost to the bottom line.

Manage Oil to Manage Operational Costs – Driving Business Efficiencies

Getting the best return on oil investments and related fried food costs is critical to managing any foodservice business. Most organizations have some level of standard operating procedures in place to track basic oil spend and handling costs – this is Accounting 101.

The breakdown comes within the traditional manual oil handling process. A series of unconnected events including oil purchase, delivery, inventory, storage, filling, filtration, disposal and recycling, may offer an adequate solution but can't provide a strategic view of the value chain, areas for improvement or areas where standard operating procedures have failed.

Even worse, only some of these links in the chain have associated tracking mechanisms. These mechanisms typically don't offer any strategic analysis of metrics that lead to process improvements such as oil usage over time, across multiple locations, or within set operating parameters. This leaves a gap where efficiencies are not realized and opportunities for training are missed. Dollars are unknowingly wasted in areas where efficiencies could exist.

Only a turnkey solution, based on a closed-loop automated oil management system, data capture and sophisticated online reporting tools can provide organizations with access to the right information to enable incremental (or, in some cases, more substantial) oil handling improvements that boost ROI.



FOOD QUALITY + CONSISTENCY

Properly managed oil can have a positive impact on almost every area of the organization including business operations and finance, employee engagement and costs and customer satisfaction.

So Who's Seeing this ROI?

Automated oil management isn't a new concept; it's been proven for more than a decade. More than 9,000 McDonald's, 800 Jack in the Box, 800 Burger King, 600 KFC, 400 White Castle locations and thousands of other corporate, franchise and independent restaurant outlets have made the change from manual to automated oil management. Perhaps the most noteworthy case for ROI from an operational standpoint is bottom-line oil cost savings.

For example, Wild Wing Café, a South Carolina-based wing chain, reduced annual oil use by almost 14,000 pounds, saving the company \$150,000 across 13 company-owned stores. At the same time, the food quality improved.

"It's not too often where you can improve your quality and increase your profitability at the same time," said Joe Sciortino, procurement director of Wild Wing Cafe. "But that's exactly what happened when we partnered with Restaurant Technologies (RTI)."

And they're not the only ones. In three years since implementing an automated oil management solution, DavCo Restaurants (one of the world's largest Wendy's franchisees) reduced its shortening use from 380 pounds a week per restaurant to 298 pounds – a savings of 21 percent.

Sciortino cites the availability of data that had always existed but was never within reach. *"Before RTI, we couldn't provide metrics or statistics on our filtration practices, time, frequency, oil usage, etc. – data we needed to change employee behavior,"* he explained.

In fact, restaurants that use the RTI system frequently experience a reduction in oil usage of approximately 15 percent while decreasing oil spend by up to 20 percent when including used cooking oil credits, without sacrificing oil or food quality. With the included reporting and management tools, these results are completely sustainable.

Measuring ROI in Flavor, Consistency and Loyalty

Restaurants have come a long way in making fried foods a healthier choice for consumers, including switching to new oil types and reducing trans fats. In New York alone, the City Board of Health regulations limiting the use of partially hydrogenated vegetable oils and spreads have made a significant impact. Five years after the regulations passed, new studies show that the average trans fat content of customers' meals has dropped by 2.5 grams, from about 3 grams to 0.5 grams.²

Oil is an essential element of food flavor and having consistently good flavor is key to driving repeat business. Research³ shows that customers are more likely to be loyal to restaurants, and spend more, for high-quality food.

To maintain this consistency, organizations need to create and manage to a schedule of fresh fryer oil, oil removal and regular filtration. Each restaurant tends to develop this process in its own unique way, which, unfortunately, can lead to deviations of the schedule – most often due to basic human error.



EFFICIENCY

The RTI Total Oil Management portal collects oil-monitoring data from fryer sensors and sends it to a Web-based site, accessible by managers online. Managers can track oil usage, real-time filtration frequencies and durations. This determines if employees are following proper restaurant procedures to maximize oil usage.



SUSTAINABILITY

Each year, RTI helps eliminate more than 6 million plastics jibs and 6 million cardboard containers from landfills, saving 4.8 million cubic feet of landfill space.

² <http://www.cnn.com/2012/07/16/health/nyc-fat-ban-paying-off/index.html>

³ <http://www.rti-inc.com/pdfs/Perutkova.pdf>

Rick Borchers, chief operating officer of DavCo Restaurants was evaluating whether an automated oil management system was the right choice for DavCo. RTI's philosophy is to offer operators a free trial to prove the value of the system, which made the decision to test an easy one for Borchers. He decided to set up a trial implementation at 15 locations.

"During our test phase, we measured oil usage and filtration procedures for several weeks without letting our multi-unit and store teams know we were monitoring," Borchers explained.

"The results of the initial stages were appalling and documented that our shortening procedures were very inconsistent."

DavCo had been following one of the industry's most common oil management processes using test strips to check oil quality. They would discard half vats and refill with fresh oil to create the sense of cleaner, but still flavorful oil. The main shortcoming of this method is that if filtering procedures are not executed correctly and consistently, the life of the oil and product taste can be negatively affected.

Like the former process used at DavCo, most restaurant oil management procedures are set up to compensate for weaknesses in the filtration process by discarding used oil weekly, and in varying stages of its useful life. Organizations use an array of methods to determine when to dispose, such as eyeballing the oil color, not being able to see the fry basket, etc. Correcting inconsistent filtering procedures can be difficult, especially when there is limited insight into filtration events, or inconsistent supervision of those performing the filtering process.

During the second phase of the DavCo test, district managers were trained on the RTI reporting tools and store-level management teams were shown how to use the filtration monitoring system. They, in turn, completed re-training of store-level employees and implemented a follow-up/audit process.

Borchers was amazed by the difference this made.

"What we found was that behavior change and positive results were nearly immediate. The district managers and the divisional vice presidents received alerts on mobile phones for pre-selected metrics, which served to force the follow up that historically had been missing. Compliance for filtration went from 43 percent to 95 percent and we have sustained a 21-percent reduction in oil usage for the past three years."

Extending the ROI Of Oil Through Proper Filtration

The fry stations at restaurants like Applebee's, which serve a diverse range of menu items, have become more complex as customer tastes expand. This means that oil is used more often, for more types of fried foods. It must be monitored and filtered regularly to maintain a high quality of food taste, no matter what's being fried. Despite this need, restaurant managers often find that employees skip or short-change parts of the oil filtration process.

To maintain accurate filtration practices, Apple American Group (the largest Applebee's franchise) added RTI Filtration Monitoring to its oil management system. The Applebee's filtration policies and standard operating procedures (SOPs) were programmed into RTI's Total Oil Management customer portal, allowing managers to track performance and provide corrective action when SOPs are not followed. As part of the Filtration Monitoring subscription, the Apple American Group has access to weekly performance reports showing each location's compliance to Applebee's SOPs. Finally, to stay on top of any change in activity, alert notifications are delivered to managers via email notifying them of any non-compliance to restaurant filtration procedures.

With the portal and the alerts, managers know right away when procedures are being met or missed. If a procedure isn't followed, it creates training opportunities for staff, improves adherence to standards and improves overall business practices.

"The new fryer filtration monitoring system has helped us to do a better job monitoring the maintenance of our oil," said Jeff Lingel, area manager, Apple American Group. "Using the oil test kits RTI supplies, the daily metrics and the summary dashboards, we are able to extend the life of the oil and improve the quality of our fried foods."

Staff-Related Expenditures – Managing Oil to Decrease Costs And Increase Engagement

Aside from food costs, operational expenditures related to compensation and other staff-related expenses are a large portion of a restaurant's annual costs. So, focusing on efforts to create a safe working environment and reduce costs associated with insurance premiums and claims, worker's compensation, accidents, loss of work days, and degradation of employee confidence are important.

In 2010 alone, more than 194,000 non-fatal occupational injuries and illnesses were logged by the Bureau of Labor Statistics for food and drinking establishments⁴ making this industry one of the top three for safety concerns.

The most common oil-related injuries include burns from refilling fryers (splashing cold oil into hot) and hot oil disposal, strains from handling oil jugs and oil disposal equipment, such as grease shuttles, slips/falls related to spilled or leaked oil, or slips/falls related to oil disposal procedures.

The closed-loop RTI oil management system greatly reduces the risk of oil-related injuries because it eliminates the need for employees to handle oil at all. The main reason: oil is never exposed unless it is in the fryer. With an automated and closed-loop system, fryer operators add, filter and dispose of oil – even while hot – without ever touching a drop. RTI remotely monitors oil levels in the fresh oil tank and refills it when needed. Employees simply use a filling wand to add fryer oil, and RTI takes care of the rest, dispatching a truck to remove the used oil and hand it off to be processed into biodiesel.



SAFETY

One of every three disabling restaurant injuries is the result of slipping, tripping and/or falling. Slip and fall injuries alone cost individual resaurant chains nearly a million dollars per year.

Connecticut Department of Public Health

⁴ <http://www.bls.gov/iif/oshwc/osh/os/osch0044.pdf>

The oil is always contained, meaning there's a greatly reduced chance for spills or leaks, and a lower opportunity for injuries due to hot or used cooking oil handling. Statistics show that adolescents working in the restaurant industry in general are at six times greater risk of sustaining a work-related burn injury than teens working in any other industry.⁵ By eliminating interaction with hot used cooking oil, this percentage can be greatly decreased.

DavCo realized tangible safety improvements through its use of the RTI system. Grease-related falls and slips are down 47 percent, strains and lifting injuries have dipped 18 percent and the average cost of injury claims has been reduced by 79 percent, a savings of over \$1,600 per claim.

Intangible employee-related benefits can also come from proper oil management. Employees get to eliminate some of the dirtiest and most despised tasks, primarily hauling hot oil to the grease pit with a slippery shuttle. Restaurant managers like those at DavCo realize the safest slip and falls are those that never happen, and the automated system has been able to render them obsolete. Safe environments can also improve employee morale, which often leads to increased productivity, greater staff longevity and better service.

Cleanliness Pays Off – In Safety and Customer Satisfaction

Srinivas Vajupeyayajula is an oil-management veteran. He's toiled through the time-consuming task of cycling oil in and out of restaurants. *"I was all too familiar with lifting oil jugs, moving dirty oil out the back, lifting and pouring hot oil into dumpsters and dealing with spills,"* he explained. *"No one likes old-fashioned oil duty."*

So when Vajupeyayajula became the owner/operator of 18 Jack in the Box franchises in the greater Houston area, he immediately transitioned to RTI's automated oil management system.

Along with improved food quality, Vajupeyayajula's restaurants—and others that use the RTI system—are significantly cleaner. This is important because cleanliness impacts the customer's view of the brand, and also helps employees view the brand as one that is responsible and focused on customer and employee satisfaction.

According to the most recent Technomic Consumer Restaurant Brand Metrics study⁶, diners say that the second most important attribute is cleanliness—including in the kitchen, bathroom and dining area. This follows food quality in importance. Eighty-eight percent of consumers they surveyed rated cleanliness as "important" or "very important" in their decision of which QSR to visit.

In more than 10 Wild Wing Café restaurants, the tools employees previously used to clean the fryers took a significant amount of time—time that could have been used to focus on the customer. *"We were spending too much time each day attempting to keep the fryers clean,"* said Sciortino. *"But now, regular and proper filtration has significantly reduced food buildup and the amount of debris on the bottoms of our fryers, making everyone happy!"*



CLEANLINESS

According to the most recent Technomic Consumer Restaurant Brand Metrics study, diners say that the second most important attribute of a restaurant is cleanliness – including the kitchen.

⁵ <http://www.cdc.gov/niosh/updates/teenfast.html>

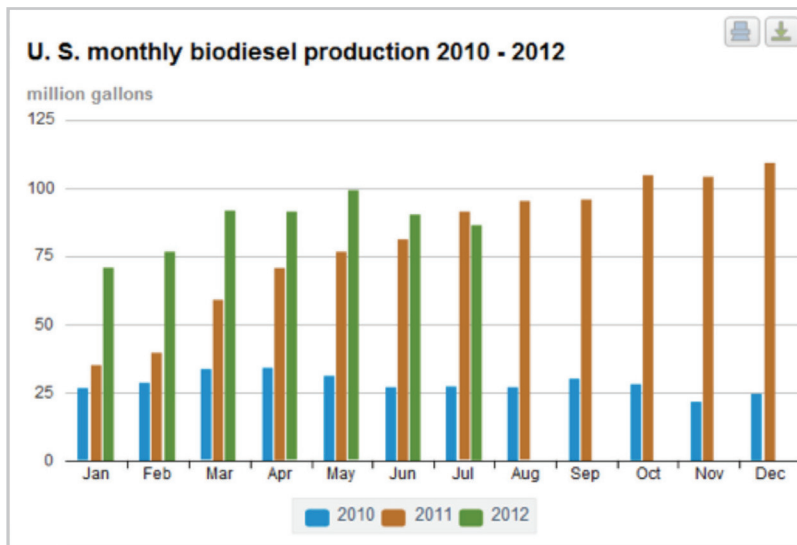
⁶ http://www.technomic.com/_files/products/consumer_marketbrief_qsr.pdf



The “Environmental” Return of Oil Management

Today “green” is more than just a color – it’s a necessary business practice. Restaurant owners and operators have embraced sustainability steps like investing in more energy-efficient technologies and recycling. Because it is heavy, liquid and requires storage, oil in traditional jugs, or jibs, requires a significant amount of packaging. Each plastic jug comes housed in a stackable cardboard box – add these components up and it equals a lot of extra packaging waste.

By decreasing the amount of plastic, cardboard and other materials that go into landfills, organizations like Apple American Group are showing how they can be more sustainable and environmentally friendly. The franchise group was able to substantially decrease oil-packaging waste when it switched to automated oil management – simply not using plastic oil jugs and cardboard packaging avoided 4,420 pounds of waste per month.



“Sustainability is important for us,” said Lingel. “And with the ability of RTI to limit waste in all facets of its program, meeting our sustainability goals has become much easier.”

Decreasing waste is a realistic opportunity for every restaurant, because RTI completely handles the oil-management process from start to finish – no oil packaging required. After receiving fresh oil from producers, RTI trucks distribute it to restaurants, and later, collect the used cooking oil. From there, RTI removes the oil, turning it over to be transformed into biodiesel and feedstock.

RTI customers are able take advantage of the RTI recycling program, not only to be “green” but also to get a return on the used oil that is “sold” for recycling into biodiesel.

U.S. biofuels production has continued to increase year over year, making used cooking oil an important resource for biodiesel producers. While some restaurants manage the sale of their own used oil, working with RTI makes the process simple. RTI and its partners negotiate the contracts and pricing, RTI automatically picks up the oil and transports it through the system where it can be recycled. Aside from agreeing to the program and receiving payment for the oil, restaurants don’t have to lift a finger.

- *Reduced labor costs associated with more efficient refilling of fryer vats*
- *Elimination of handling used cooking oil and packaging trash*
- *Elimination of repair and replacement costs for oil filtering and disposal equipment*
- *Reduction in new oil consumption through better oil management*
- *Elimination of residual oil loss which remains in oil cartons*

*US Energy Information Administration Monthly Biodiesel Production Report, Sept. 27, 2012
<http://www.eia.gov/biofuels/biodiesel/production/>

ROI at Every Step

Throughout the value chain – from purchase to recycling – oil management done the right way can pay off. The financial benefits are clear – reducing oil usage and creating efficiencies saves money. But the soft benefits such as better flavor and more consistent food quality, more satisfied and loyal customers and a safer, happier workforce also provide a return.

More than 600 KFC restaurants across the nation see these benefits every day, including franchise-owner Ken Schultz's operations.

"Frying food with degraded oil isn't something we can gamble with – nor should any restaurant that cares about food quality," Schultz said.

"With RTI, we now have peace of mind knowing that our oil is handled properly – from storage and handling, to filtration and disposal."

Anatomy of a Closed-Loop Automated Oil Management Solution

"Other systems are available that create a closed fill and disposal system; however there are no oil management components associated with these systems, thus they have no benefit or value."

– Rick Borchers, chief operating officer, DavCo Restaurants

A closed-loop oil management solution includes two tanks installed inside or outside each restaurant. One contains fresh cooking oil. The other holds used cooking oil. The bins are connected by lines that extend to a secure fill-box mounted on the outside of the building. RTI remotely monitors the level in the fresh oil tank and refills it when needed, while removing the used cooking oil and hauling it away.

Using sensors embedded in the equipment, the system captures important data regarding oil usage, filtration events (optional) and more. This data is automatically compared to each restaurant's own standard operating processes. The system flags any data points that are out of compliance and managers receive real-time alerts via email or text message.

For reporting and process improvements, managers can monitor data for single or multiple restaurant locations, analyze oil quality, usage and filtration statistics via the portal, anywhere they have Internet access. The system provides easy-to-interpret graphs that eliminate the need for complex data analysis and enables managers to take action quickly to ensure oil is used as efficiently as possible.

More than 18,000 foodservice locations across America have implemented RTI's system and have felt the positive impact it's had on food, finances and everything in between.

RTI HARDWARE

- *Fresh Oil and Used Cooking Oil Tanks*
- *Filtration System*
- *Fill Box*
- *Fill Wand*

RTI SOFTWARE

- *Online Reporting Portal*
- *Filtration Monitoring*
- *Customer Centric Reporting*
- *TOM Subscriptions*

RTI SERVICES

- *Oil Purchase Management*
- *Automatic Fresh Oil Delivery*
- *Automatic Used Oil Removal*
- *Manager Training*
- *Employee Training*
- *Installation and Maintenance*