

For Continuous Cooking Oil Filtration



LAKOS
Liquid • Solids Separation Systems[®]

Improves Fryer Productivity and Product Quality

LAKOS CSX Series Separators are specifically designed to continuously remove the crumbs and fines from cooking oil that are generated during the frying process. Replaces traditional fines boxes and rotary screens. Installed on the discharge of the fryer's oil circulating pump, the patented LAKOS Separator employs centrifugal action to separate and concentrate the unwanted crumbs to achieve these benefits:

Longer operating cycles between downtime/maintenance.

Reduced heat exchanger fouling; sustained heat transfer capacity.

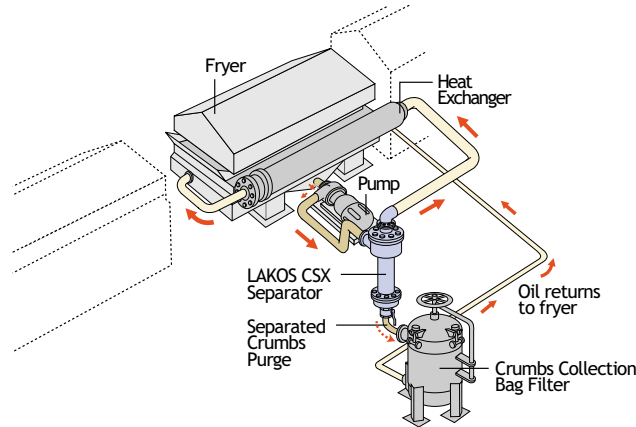
Optimum/consistent cooking oil velocities and the elimination of dead spots within the fryer by the prevention of crumbs accumulation.

Maximum cooking oil quality, including improved oil appearance and a lighter oil flavor. Lower free fatty acid content contributes to extended product shelf life.

Fire hazards and operating burdens related to fines boxes are eliminated.

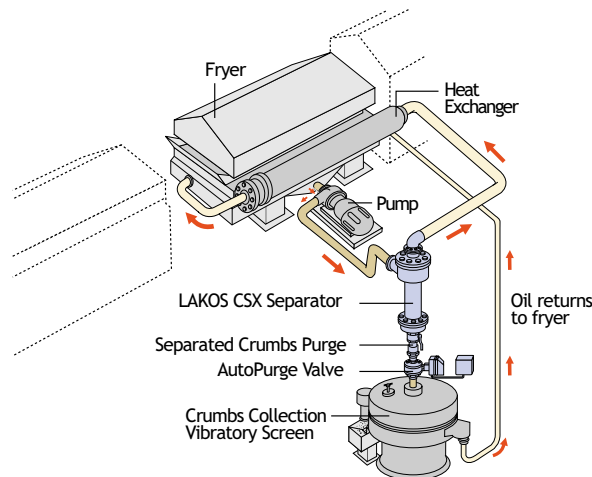
Separated crumbs and fines are discharged from the CSX Separator and concentrated as desired for easy handling and disposal. Unlike traditional screens and filters, the oil is not strained through the separated crumbs, instead maintaining optimum cooking oil quality and consistent flow characteristics through the fryer.

LAKOS CSX Separator & Solids-Handling Options



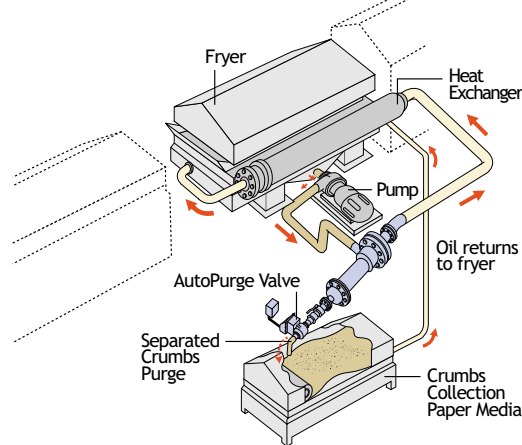
Bag Collection Option

The continuous purging of crumbs into a specialized bag filter vessel concentrates the solids for easy handling, returning all cooking oil to the process.



Vibratory Screen Option

For handling a larger volume of crumbs, this approach employs the LAKOS AutoPurge Valve with remote controller, discharging into the vibratory screen for concentrating waste and returning excess oil to the fryer.



Paper Media Option

When the application involves very fine crumbs, this technique captures the separated crumbs and returns the oil to the fryer. A LAKOS AutoPurge Valve with remote controller periodically purges separated crumbs to the paper media.

Applications

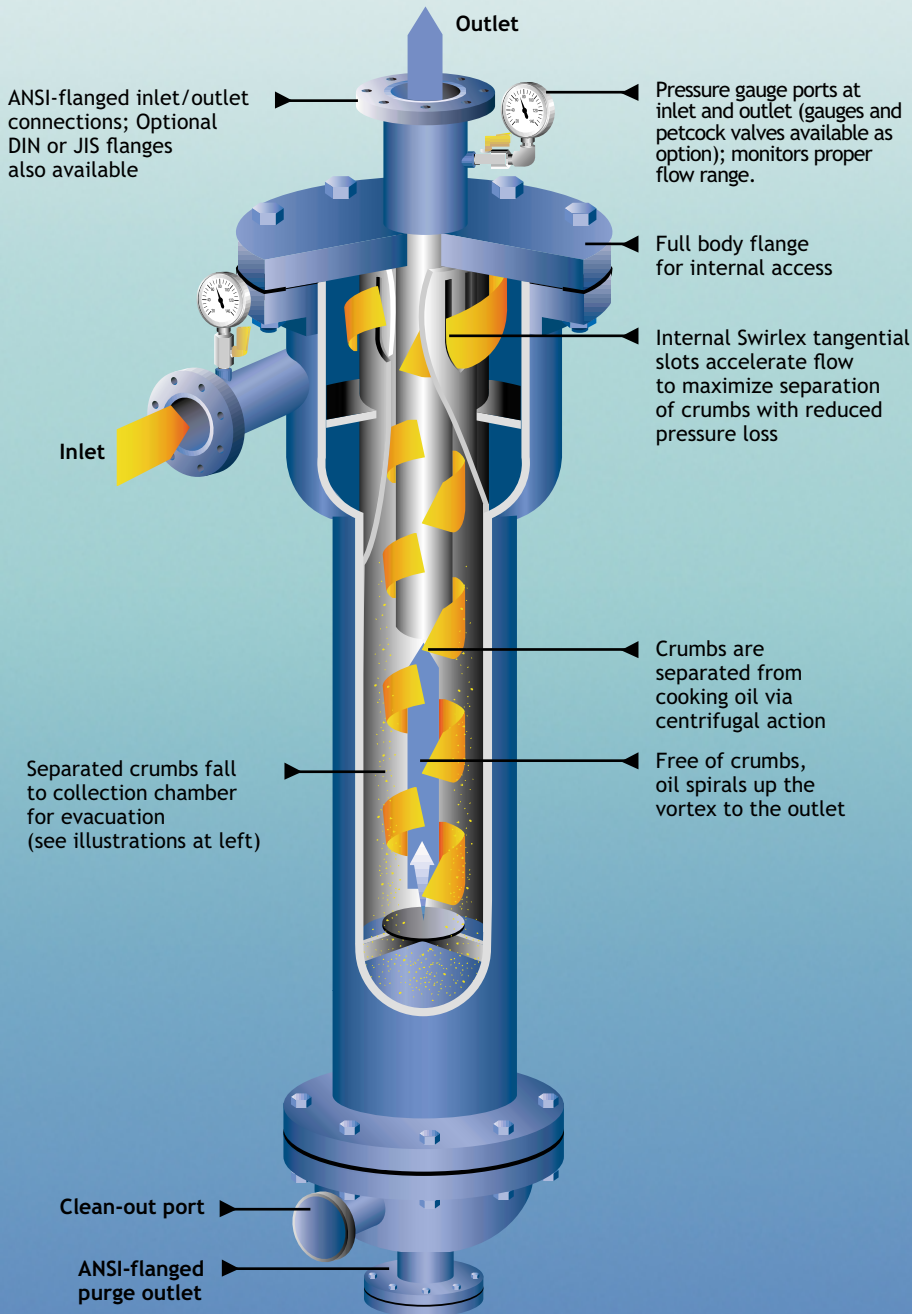
Fried-then-Frozen Foods

- ▶ Chicken Nuggets
- ▶ Breaded or Batter Products
- ▶ French Fries
- ▶ Appetizers
- ▶ Pre-Formed Potato Products

Snack Foods

- ▶ Potato Chips
- ▶ Tortilla Chips
- ▶ Corn Chips
- ▶ Extruded Snacks

LAKOS Centrifugal-Action Separation



- ▶ No moving parts to wear out.
- ▶ No rotating screens or fines boxes to clean or replace.
- ▶ Low and steady pressure loss, independent of separated crumb accumulation.
- ▶ Complete, packaged systems available.
- ▶ Compact, space saving profile.
- ▶ Minimal oil loss.
- ▶ Effective solids concentration for easy disposal.
- ▶ Stainless steel or carbon steel construction & high temperature componentry.
- ▶ Pressure rated to 100 psi (6.8 bar); higher pressures also available.
- ▶ Flanged, leak-free inlet, outlet and purge connections.
- ▶ Full internal accessibility for cleaning/serviceability.

Full Flow Filtration

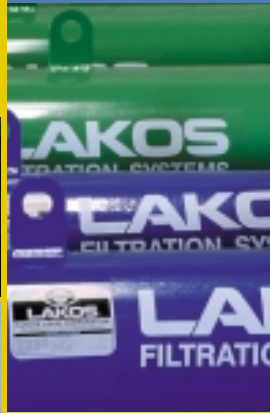
Entire flow of the fryer is filtered with the CSX Separator

Low Maintenance Filtration

CSX Separator is self-cleaning; no periodic maintenance

Pressurized Filtration

Crumbs removed by CSX Separator in pressurized, non-oxygenated environment



A Tradition. A Heritage.

Since the mid-1940's, Claude Laval Jr.'s inventions have been solving problems. A miniature camera that takes picture deep into water wells. A well casing repair device that restores the effective use of a water well. And, the first sand separators, which protected submersible and turbine irrigation pumps. Today, the LAKOS Separator is a proven solution for process industries, public water systems, heat transfer systems and more. Complete and engineered solutions for the removal and concentration of troublesome solids. Total liquid recycling. More and more problems solved.



The LAVAL history features more than 150 U.S. and foreign patents. Its focus is clearly filtration. Its complete line of products includes separators, sand filters, self-cleaning screen filters and pump intake screens for a broad range of industries. Experience, quality, performance and integrity. Satisfying real problems with value-oriented solutions. It is our heritage. It is exclusively what we do best.

From the 100,000 + square foot manufacturing, sales, marketing and engineering headquarters in California and strategic secondary manufacturing and warehousing, Claude Laval Corporation directs its operations with a worldwide network of technically-trained distributors.

We welcome your technical/application inquiries. We encourage you to tour our facilities. We are your reliable source for experienced application expertise.

LAKOS

Liquid • Solids Separation Systems®

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LAKOS products are manufactured and sold under one or more of the following U.S. Patents: 3,289,608; 3,512,651; 3,568,837; 3,701,425; 3,947,364; 3,963,073; 4,027,481; 4,120,795; 4,123,800; 4,140,638; 4,147,630; 4,148,735; 4,305,825; 4,555,333; 5,320,747; 5,338,341; 5,368,735; 5,425,876; 5,571,416; 5,578,203; 5,622,545; 5,653,874; 5,894,995; 6,090,276; 6,143,175; 6,202,543; Des. 327,693 and corresponding foreign patents. Other U.S. and foreign patents pending.

LS-630

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