

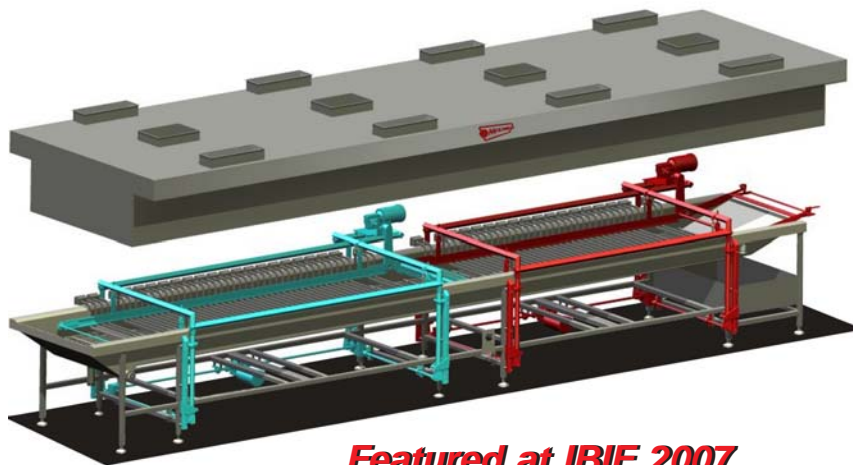


A d v a n t a g e

BALANCING HIGH OUTPUT WITH ENERGY EFFICIENCY

All New! LIBRA FRYER

Enhance Frying Oil Quality With Dynamic Filtering

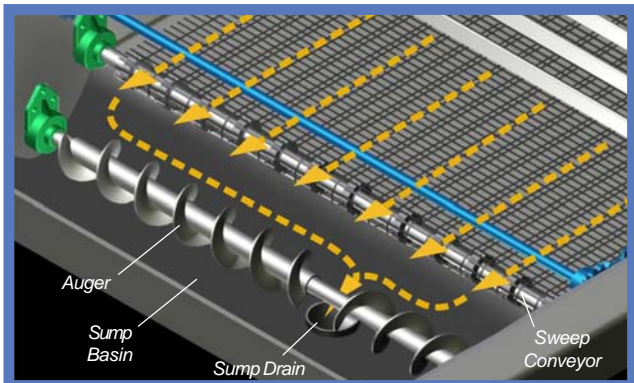


**Featured at IBIE 2007
in Orlando, FL**

The new Moline LIBRA fryer is a *major* advancement in frying technology and efficiency for industrial donut and sweet goods manufacturing plants. Moline's LIBRA fryer features a new ShallowKettle design that requires less oil than cross tube fryers and includes a "dynamic filtering" system while in production. The results: lower heat input and improved frying oil quality with less down time for sanitation (ideal for Zero Trans frying oils).

Dynamic Filtering:

A bottom sweep conveyor continually pulls sediment



toward the kettle sump basin at the infeed end of the fryer. The sump basin contains an auger that transfers sediment from the fryer kettle to the sump drain. The sediment waste and used frying oil are run through a continuous filtration system where the debris is collected and the filtered oil is sent back to the fryer supply tank for reuse.

Moline's unique oil leveling system can be used with bulk supply systems or with solid shortening cubes loaded at the fryer. This design is simple to operate and provides maximum efficiency. Several oil filters are available, depending on customer application.

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Inside This Issue:

- **The New Moline LIBRA Fryer:**
New design, higher efficiency, dynamic filtering.
- **The New Soft Dough System:**
Featuring the low stress feeder and spiral sheeter.
- **Servo Drive Stampers:**
High speed, low scrap percentage.

LIBRA FRYER

continued...



Electric Heating Elements

Heating Systems:

The LIBRA fryer is available with one of two types of heating systems: electric element or remote natural gas. Each contains its own benefits and incorporates quiet and efficient operation. With the LIBRA fryer there are no cross tubes; no thermal migration within the surface conveyor; side to side temperature control is precise and heat capability is matched to the load. Heating is efficient, uniform and easily controlled.

Electric Element Heating

LIBRA electric fryers are 100% efficient. Custom engineered heating elements use a low watt density design that keeps element surface temperatures low and oil quality high. The fryer is quiet and has no flue gases to exhaust. Electric element heating is a proven reliable system. Moline has many successful installations throughout the industry.



Thermal Heat Exchanger

Photo Courtesy of GTS Energy Inc.

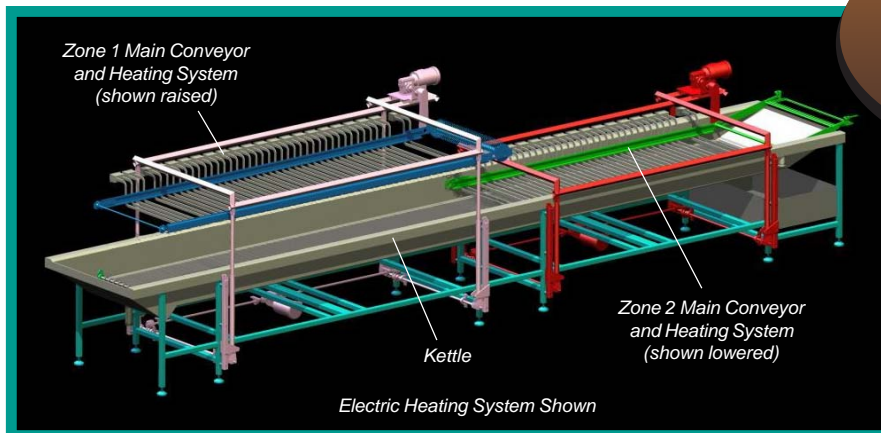
Remote Gas Heating

This system consists of a gas fired (natural or propane) heat exchanger that is used to heat food grade thermal oil. The thermal oil is pumped to sanitary radiators inside the LIBRA fryer kettle (one per zone) that uniformly heat the cooking oil. This system is ideal for operating multiple fryers from a single heat source that is located away from the production area.

Sanitation:

Improved sanitation features are incorporated into the LIBRA fryer such as a removable heat transfer system (no welded cross tubes are used in the kettle), and independent surface conveyors driven by zone. The canopy is ceiling or frame supported to provide open access for cleaning and operation. The sweep conveyor and

- Reduces operational costs.
- Improves sanitation efficiency.
- Operator and process friendly.



Zone 1 Main Conveyor and Heating System (shown raised)

Zone 2 Main Conveyor and Heating System (shown lowered)

Kettle

Electric Heating System Shown

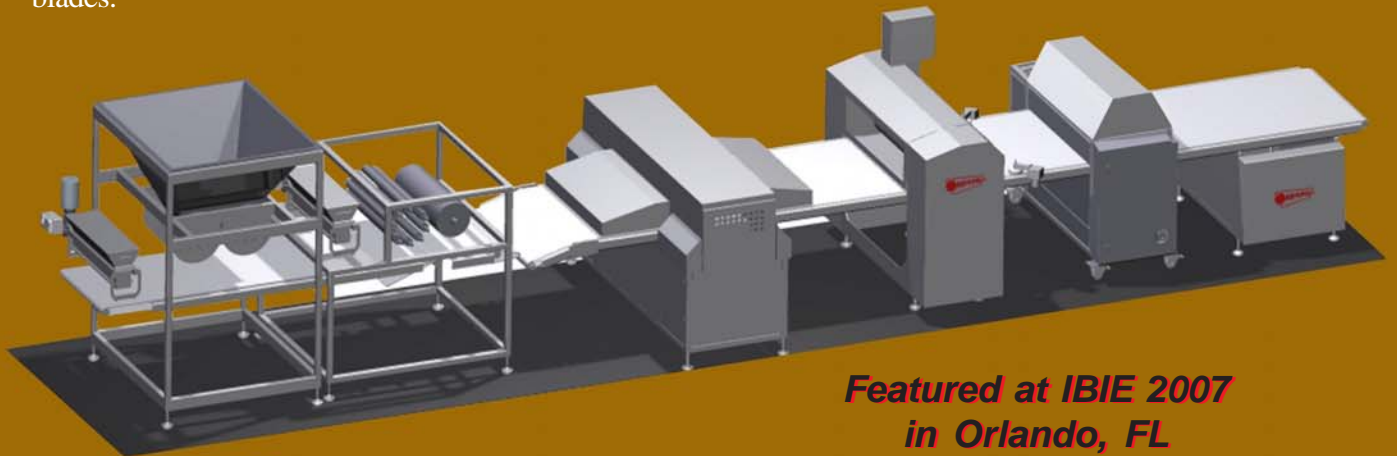
sump basin allow for sediment removal and continuous dynamic filtering. All of these features translate into less down time for sanitation and easier cleanup.



Bring your operation into the future with the Moline LIBRA fryer.

New! Soft Dough System

The new Moline Soft Dough System is a high capacity, severe duty design for industrial processing of soft, sticky and highly fermented doughs such as biscuits, scones, focaccia and ciabatta. There are no transfer points through the sheeting and make-up sections. This reduces dusting flour and eliminates dough buildup on scraper blades.



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Dough Former

The system contains a stressless dough sheet former with variable width control designed to deliver a uniform sheet of dough to the sheeting system. A chunker, with hopper and starwheel portioning paddles, delivers measured portions of dough to a reverse satellite roller which gently kneads the pieces together. The dough then passes under a tamping roller where final forming occurs. Flour dusters deliver a controlled amount of flour to the conveyor belt and to the dough sheet for smooth and consistent operation.

Servo Cross Sheeter

The servo cross sheeter gently but quickly sheets dough from side to side with a single reciprocating roller, duplicating the action of a hand rolling pin. The servo drive provides precise width control with rapid acceleration/deceleration profiles for high output.

Spiral Sheeter

The spiral sheeter provides a unique cross sheeting action on the dough by drawing it out from the center via the action of the spiral roller which is located beneath the belt. The roller opening gap is easily adjusted through the operator interface.

Driven Rotary Cutting Station

This flexible machine accommodates large diameter rotary cutters that are positively driven. It is ideal for cutting thick dough sheets at high speeds. There is no slippage between the cutter and the belt and final sizing can be precisely controlled by slightly over- or under-driving the cutter. Hinged guarding is electrically interlocked to ANSI standards and is designed to accommodate fast cutter change-overs.

For more information contact Moline Customer Service (800-767-5734 or sales@moline.com).

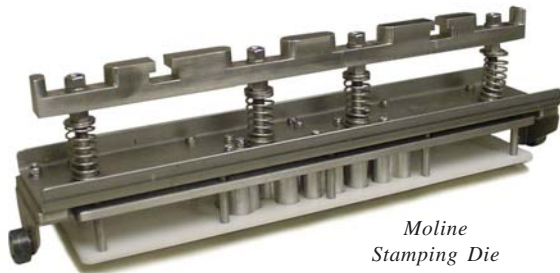




Servo Drive Stamper

The Moline servo drive stamper is designed to cut various product shapes from a dough sheet using a straight, vertical cutting action. The “walking” action of the stamper allows product to be cut with no lateral movement between the dough and the cutting surfaces. Since the stamper is servo controlled, many types and sizes of product can be cut just by changing the die and manipulating the program through the operator interface. Servo drive also provides precise control of acceleration and deceleration profiles for high capacity lines and different dough consistencies.

All Moline stamping dies feature positive stripping of the cut dough piece. This is ideal for complex shapes, thick or sticky dough pieces or where cutting must be synchronized with an upstream or downstream process. Dies are easily changed to meet variety production needs.



*Moline
Stamping Die*

