

LMC AIR GAP

LMC's revolutionary Air Gap Cleaner provides a new approach to the concept of upstream foreign material removal. Performing foreign material separation early in the cleaning process allows for increased efficiency by downstream processing equipment.

When receiving product, unload time is of the utmost importance. The high capacity LMC Air Gap Cleaner can receive large volumes of product, while simultaneously performing accurate and precise cleaning.

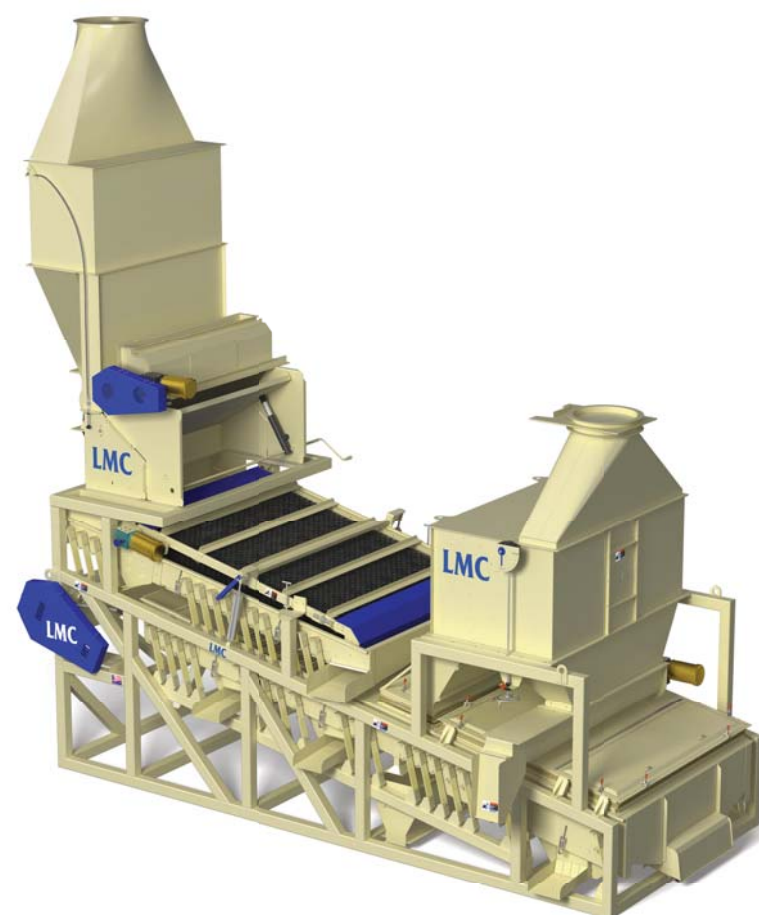
Detwiggers and sandscreens have been used for decades in precleaning applications. The LMC Air Gap Cleaner includes the use of these proven concepts in addition to the namesake "Air Gap" for stone removal and additional screening for loose shelled kernel, field meat, and/or additional sand removal. The inclusion of the "Air Gap" destoner allows for a significant reduction in stone and heavy foreign material volume therefore allowing downstream precision density destoners to perform more accurate separations.

With food safety concerns always increasing, removing the loose shelled kernels created in the field allows for a concentrated and independent processing line for at-risk product.

Options are available to customize each cleaner for maximum foreign material removal.

OPTIONAL FEATURES

- In-feed Aspiration
- Variable Speed Roll feeder



Shown with Optional In-feed Aspirator

MODEL	ENERGY Eccentric Stick Belt Auger Roll Feeder	CFM	HEIGHT (Without Optional Aspirator)	WIDTH	LENGTH
8410PAG	7 1/2 hp 3/4 hp 2hp 1hp	12,000	145 5/8"	101"	238 1/4"
7210PAG	7 1/2 hp 3/4 hp 2hp 1hp	10,000	145 5/8"	89"	238 1/4"
6010PAG	7 1/2 hp 3/4 hp 2hp 1hp	8,000	145 5/8"	77"	238 1/4"
4810PAG	5 hp 3/4 hp 2hp 1hp	8,000	145 5/8"	65"	238 1/4"



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FOURTH GENERATION FAMILY BUSINESS WITH OVER 70 YEARS
EXPERIENCE IN DESIGNING AND BUILDING PROCESSING EQUIPMENT.

WE AT LMC TAKE PRIDE IN OUR ABILITIES, OUR INNOVATIONS, OUR PEOPLE,
AND OUR CUSTOMERS. LMC IS A QUALITY DRIVEN COMPANY WITH EMPHASIS
ON PERFORMANCE, RELIABILITY AND CUSTOMER SATISFACTION.

ASPIRATORS BEAN POLISHERS CLEANERS CONVEYORS DESTONERS
ELEVATORS GRAVITY SEPARATORS HARD SHELL CRACKERS PEANUT BLANCHERS
PEANUT SHELLERS PREHULLERS SHEAR ROLLS SIZING SHAKERS



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VARIABLE SPEED ROLL FEEDER

Product is fed utilizing a variable speed roll feeder to control flow to the cleaner. The roll feeder enables the operator to easily and accurately adjust product flow to fit any situation.

DECKS

It is essential for product to be properly distributed to the screens in order for optimum separation to occur. If the product is too deep, it cannot be adequately presented to the screens for separation. In most cases, the siftings are generally lighter than desirable product. A deep product flow compounds the sifting process, thus causing the lighter siftings to migrate to the top of the flow as it travels down the vibrating deck. Increased screening area ensures adequate product contact allowing for greater screening efficiency. With this knowledge in mind, LMC manufactures the Air Gap Cleaner in four different widths to ensure that each customer's capacity requirement is met.

BALL TRAY

LMC's unique ball tray design gives the 2" ball used for cleaning screens unprecedented random action, and has proven to be far superior to the woven wire systems found in other machines. All ball trays are manufactured in 2' long removable sections for easy clean out when sanitation is a high priority.

DESTONER

The Air Gap Destoner is designed to lift the acceptable product across the air gap. The heavier foreign material, such as stones, heavy dirt balls, and metal will fall through the air gap and out of the product flow.

STICK BELT

The stick belt ensures that extruded foreign material maintains a parallel orientation with the four sections of poly screens and avoids reintroduction into the product flow. The quick change poly screens are available in nearly any size enabling optimum separation. Pneumatic lifts are included to provide easy access to the poly screens.

ASPIRATION

In the aspiration section of the air gap destoner, light foreign material liftings such as leaves, hay, small sticks, and pops are removed as a result of their lower density when compared to that of the acceptable product.

EXPANSION CHAMBER

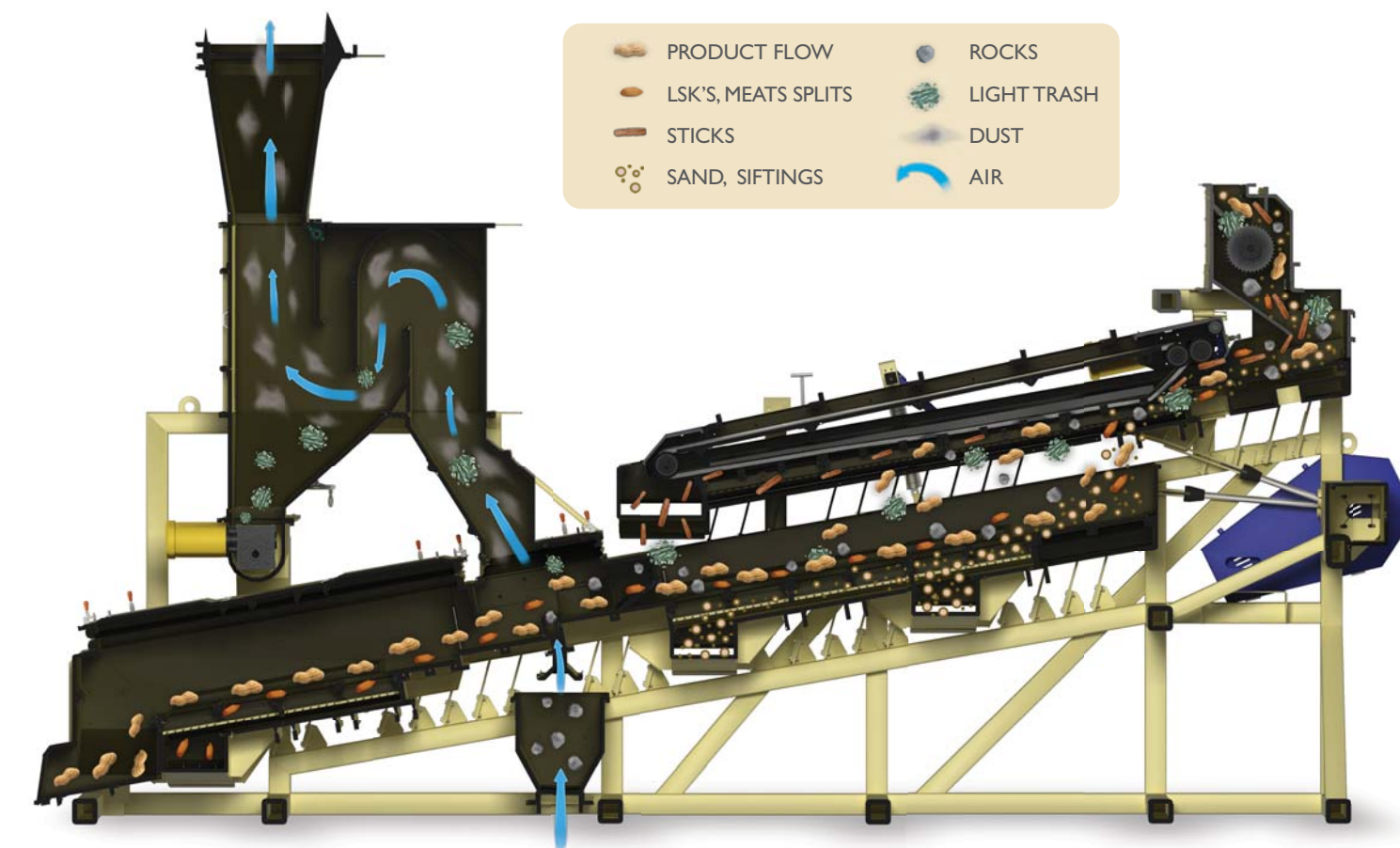
The liftings go to an expansion chamber to allow the reject product to drop out of the air stream. The liftings are conveniently discharged via a screw auger for inspection and can provide insight as to whether or not an air adjustment is necessary.

SCREENING

Screen combinations, along with deck configurations, can be arranged to perform sifting and scalping operations on the same machine. LMC's quick change screens are manufactured in 2' sections for easy changing.

SPOUTS

Each machine is custom designed to include a spouting configuration that matches each customer's specific situation. Size, location, and orientation of spouts are some of the many modifications that LMC can incorporate into the machine's design in order to accommodate unique separations or space constraints.



PRINCIPLES OF OPERATION

Product enters the cleaner through a variable speed roll feeder, which allows for flow rate control. The roll feeder evenly spreads the product and transfers it to the deck, where a stick belt drags across poly screens to keep the sticks flat and avoid diving through the holes with the product to the lower deck. Dirt and sand is removed on the lower deck with the use of perforated sifting screens. Once the dirt and sand is removed, product is conveyed to the destoner. Acceptable product is lifted over a narrow "air gap" that essentially functions as an air knife for stone removal. The stones, dirt balls, and metal which are too dense to float over the gap then fall through the gap while light trash and dust float into the expansion chamber to be conveyed out as discard. Light dust particles travel through the ventilation system and then to a dust collection unit. The remaining acceptable product continues down the deck and flows over another series of perforated screens to remove any LSK's, meats, splits, or any other siftings that may be present.

