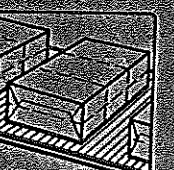
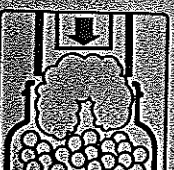
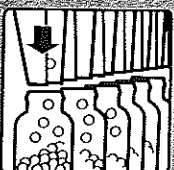
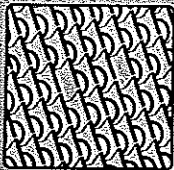
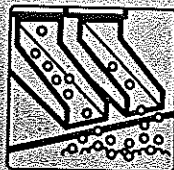
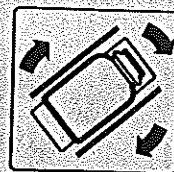
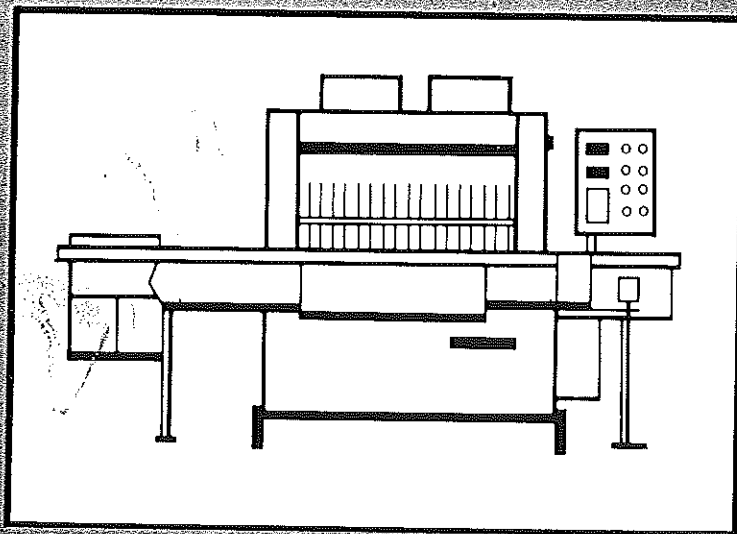


LAKSO REFORMER

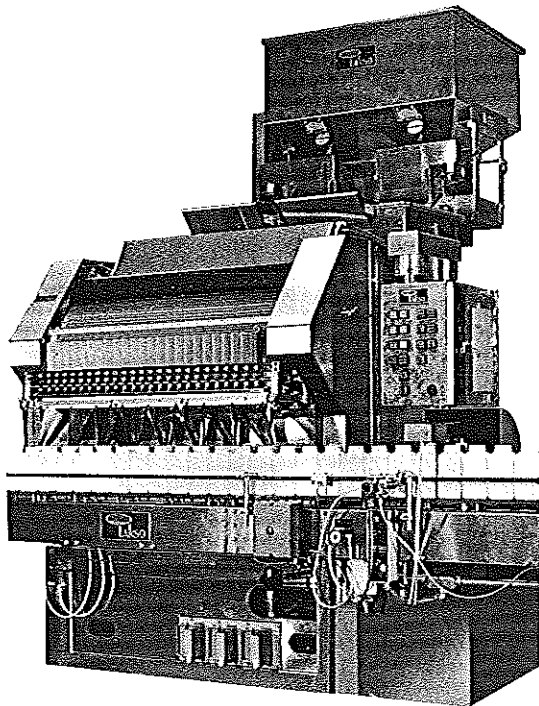
Tablet & capsule counter-fillers



PACKAGE

Lakso

Lakso Reformer counter-fillers: Productivity champions for accurate, high-speed container filling.



There's a Lakso Reformer machine to improve your counting and filling capability.

Model 300
Model 450
Model 990

Lakso Reformer machines have built a record that's second to none in pharmaceutical product counting and container filling. The basic Lakso idea: use mating slats to separate tablets and capsules into easily countable units, then fill containers with exact quantities of product.

As production demands increase, the need to maintain high-speed accuracy and good manufacturing practice becomes even more critical. Here's how Lakso is working to meet all your requirements, for today and for tomorrow.

Accurate high-speed counting. Because line speeds frequently move too fast for visual inspection of product presence in every cavity in the mating slats, Lakso developed the MicroScan® Empty Cavity Detection System (ECDS). Infrared light sensors combine with solid-state technology to detect any cavity where product is missing, literally at the speed of light. The resulting short-count container can then be rejected from the line.

Clearing out all the product. When a tablet or capsule gets hung up, the slat cavity looks full but won't discharge. Undetected short-count containers result. The Lakso positive purge system ends this problem. Stainless steel pins mechanically probe each cavity as slats pass the drop point, gently assisting product into the filling chute. All product is positively ejected into containers, even at the fastest line speeds.

Careful, clean product handling. One-piece mating slats, which carry product, are made of approved engineering-grade plastic. Product cavities are smooth and open, without undercuts or crevices which can trap dust and contamination. The interlocking feature of Lakso mating slats adds rigid strength for more efficient cavity filling and higher machine output potential.

Efficient sifting and screening of product. Even before tablets and capsules enter the Reformer machine, dust and chips are screened out in the Lakso Sifti-Feed hopper. This helps to keep slats and chutes cleaner, and results in a cleaner product in the container.

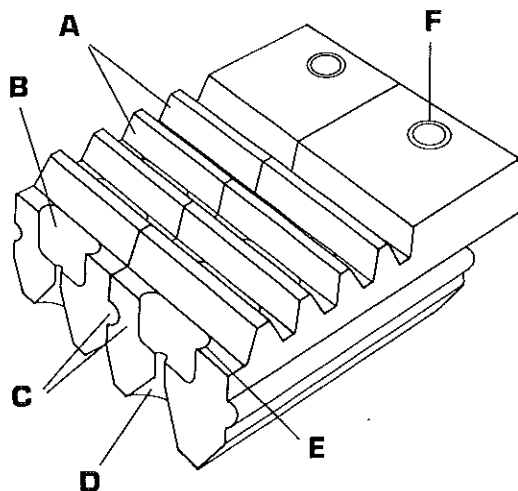
Quick changeover and maintenance. Lakso Reformer machines meet the needs of all your container sizes and product lines, quickly and efficiently. Changing container sizes? Filling chute assemblies can be replaced in minutes, without the need for tools. Changing products? Mating slat sets are easily accessible for fast replacement or cleaning. Reformer machines open wide for maintenance or cleaning. All side panels are hinged for convenient access and interlocked so the machine can't be operated when panels are opened. The entire machine is mounted on a portable base, ready to be moved back from the line for work.

Ruggedly built for good manufacturing practice. A box-type foundation provides rigidity, even at high line speeds. All product contacting surfaces are stainless steel or approved plastic. Welded joints are ground and blended smooth to eliminate dust and contamination buildup. A built-in system uses brushes and high-pressure air jets to clean out mating slats between cycles. Oil-tight switches and push buttons are used throughout. Controls are housed in NEMA 12 electrical enclosures. There are no painted machine surfaces above conveyor height.

Every Lakso Reformer counter-filler includes an adjustable chute divider assembly to match your container requirements. Additional change parts are available as required.

Programmable Machine Control. All solid state electronics now control every phase of machine operation. Reliable and fast, with easy change in set-up or operation.

Lakso mating slats—efficient carriers for tablets and capsules.



Tablets and capsules move through Reformer machines in matched sets of mating slats. Each slat is machined from a single piece of high-density, high-impact plastic. Because Lakso mating slats are made without external reinforcing members, operation is cleaner and clean-up is faster and easier.

A. Dividers help pre-sort tablets and capsules during loading.

B. Product cavities are clean and open, without undercuts or crevices which can trap dust and contamination.

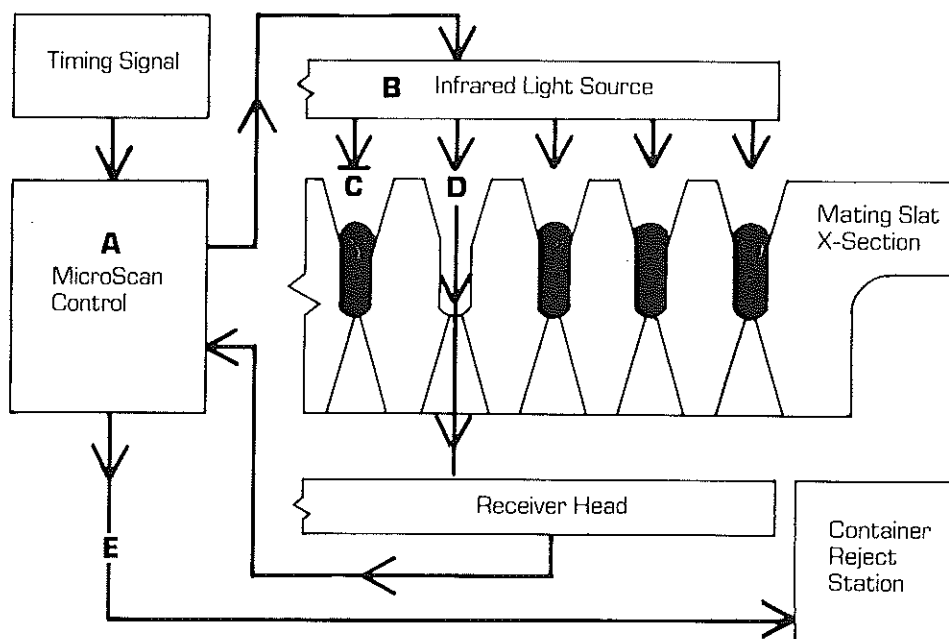
C. Integral mating tongue matches groove on next slat for added strength, more efficient cavity filling, higher machine output potential.

D. Bottom hole gives access for positive purge, as well as making cleaning easier.

E. Leading edge of cavity is beveled for smoother product drop.

F. Mounting hole is nylon-lined for no-wear operation.

Checks every cavity, every cycle, at any speed.



The Lakso MicroScan® empty cavity detection system solves the problem of positive, every-cavity inspection, even when operating at high speeds. The system is reliable simplicity itself, using infrared light and advanced solid-state electronics. Here's how it works.

A. The MicroScan control, during operation, monitors data from both heads and the timing signal, processes and stores the data, and generates a signal to the reject system if necessary.

B. Light from an infrared L.E.D. source is beamed through a hole in the bottom of the mating slat, on signal from the MicroScan control.

C. If product is present, the infrared light is blocked, and no signal goes to the receiver head.

D. If the cavity is empty, infrared light passes through to be picked up by the receiver head and recorded by the MicroScan control.

E. When an empty cavity is recorded, a properly-timed signal is sent by the MicroScan control to

the container reject station, to indicate which container is short-counted.

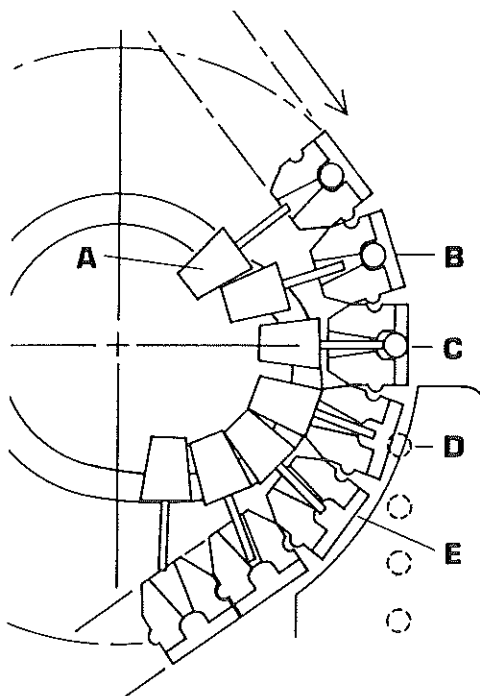
The reject station is fully automatic, mechanically transferring short-counted containers to take-away conveying system.

The MicroScan control is used to program the correct slat cavity spacing for the universal light source and receiver heads, and the number of containers to be filled on each cycle. This compensates for run-to-run slat spacing changes without the need for change parts.

Light source and receiver heads are exceptionally stable, even in the presence of ambient noise, plant lighting and dust. They feature long life, low power consumption and minimal heat generation.

A built-in self-diagnostic feature in the MicroScan control functions after each fill, to make sure the entire ECDS is set up correctly and functioning properly.

Positive purging of all product.



The Lakso purge system insures that all tablets and capsules are discharged from every cavity of each mating slat, every cycle. This precludes having undetected short-count containers as a result of product hang-up, without the need for extra inspection personnel.

Mechanically-actuated stainless steel pins probe each cavity as the mating slat reaches the drop point gently assisting all product into the bottle filling chute. Pins for an entire slat width are contained on a single bar.

A. Pin bars ride on a stationary cam positioned behind the drop point, mechanically synchronized to work as the mating slats pass this point.

B. As mating slat approaches the drop point, pins enter holes on the bottom of the mating slat. These are the same holes used by the MicroScan ECDS.

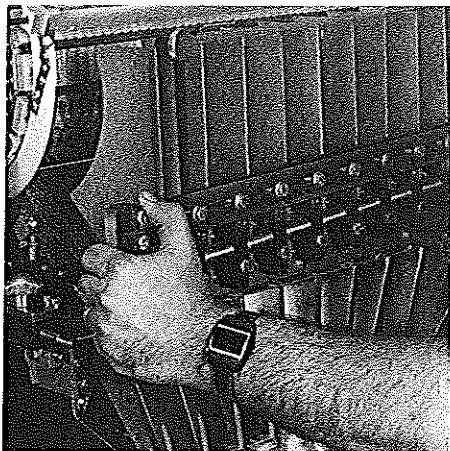
C. At the drop point, pins gently probe deep into each cavity, making sure all product is loose and ready to drop.

D. All product drops free on the way to containers.

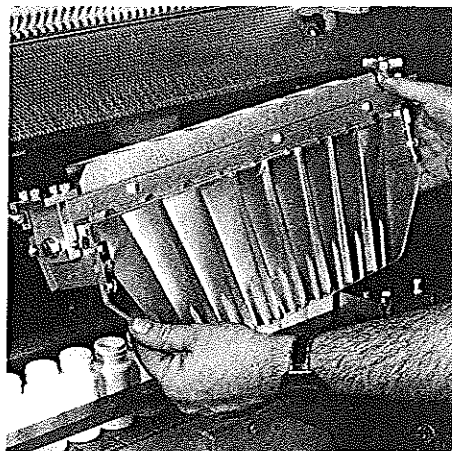
E. Immediately after the drop point, purge pins retract while mating slats move on for cleaning and refilling.

Purge pin bars are supplied in sets to match mating slat cavity spacing. Because pin bars are mechanically synchronized with slat travel, they are not adjustable.

Quick access for fast changeover.

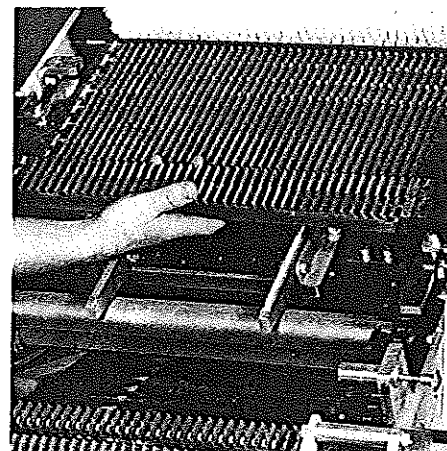


Getting into Lakso Reformer machines—for changeover, cleaning or maintenance—is quick and simple, and requires no tools. Chute dividers are removed by loosening two quick-release fasteners, then lifting off.



Next, remove the bottle filling chutes by loosening quick-release fasteners and lifting off. Precision machine construction assures accurate fit of all parts.

Mating slats fit onto pins attached to the driving chains. To remove slats, simply open the



machine guards and lift off. Drive chains may be of stainless or carbon steel, depending on specifications.

In just 10 to 15 minutes all change parts can be removed, leaving the Reformer machine ready for inspection or cleaning.

Customize Reformer machines to your own needs.

Equipment to customize Lakso Reformer counter-fillers to your own requirements includes:

Air cylinder index for simultaneous filling and indexing of containers. Air-operated stops clamp to any conveyor rail to direct the next batch of containers into filling position. All containers are visible during indexing as well as filling, without precision adjustments.

Feed screw index, a patented Lakso system to quietly handle and precisely locate containers of vary-

ing sizes and shapes directly under filling chutes. This system eliminates dividing and combining of containers, and permits shorter conveyor lengths.

White mating slat set offers high color contrast to improve visual product inspection.

Static eliminators are used to reduce the effects of static charges held by tablets and capsules.

Model 73 hoist and feeder is often an essential component of a tablet/capsule line, providing labor-

saving operation along with dust removal, screening and cleaning of products. An elevating bulk hopper feeds product on demand from the Reformer machine. Ask for the Model 73 brochure.

Automatic controls provide security against container jams and product spills. Automatic infeed and backup controls stop machine operation if the container supply fails, or if a backup occurs on the conveyor line.



Leominster, MA 01453 (617) 537-8534
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A Division of

Package Machinery Company

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FOR IMMEDIATE RELEASE

The Lakso Division of Package Machinery Company has led the way with automatic tablet inspection systems for over eight years. Lakso's Microscan empty cavity detection system has consistently proven to be one of the most dependable tablet monitoring systems available.

Now Lakso has pioneered the application of vision inspection to detect broken or missing products as well as "strangers."

The Lakso Vision Inspection System utilizes five (5) solid state cameras to inspect tablets being fed at full operating speeds through Lakso's Reformer 990 tablet counter/filler.

The Vision Inspection System will spot missing tablets or broken tablets with as little as 20% mass loss (depending on tablet orientation in the filler slot). The system will also detect foreign materials or "strangers." Once spotted, the defect is tracked to a given bottle and positively ejected from the conveyor at the Lakso eject station.

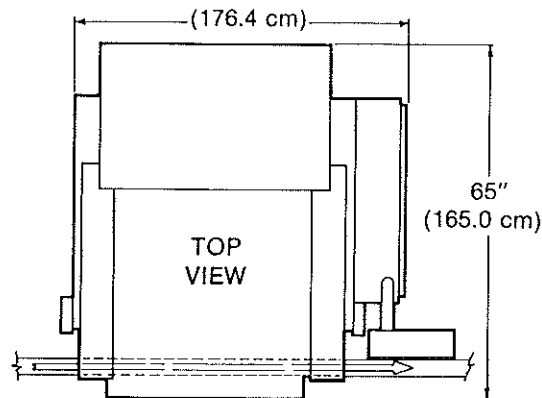
Extensive training to operate the system is virtually eliminated. The system employs a user-friendly menu to guide the operator through set-up and operating steps. A patented technique for data analysis ensures that the processing speed of the system is the best available.

Of course, Lakso's reputation for service and dependability stands behind the Vision Inspection System. For more information, call Lakso today.



REFORMER® 990

Tablet & capsule counter-fillers



PERFORMANCE

Estimated Speed Table:

Type of Product		Approximate Speed-Bottles/Minute
Aspirin Tablet 13/32" dia (10.3 mm)	50 count	to 300 bottles per min.
	100 count	to 260 bottles per min.
Capsule Size #1	50 count	to 300 bottles per min.
	100 count	to 200 bottles per min.

Speeds are affected by factors such as: size and shape of product, hardness, coating, container size and shape, tolerances of product, type of conveyor. When supplied with product and container samples, we can reasonably estimate speeds.

Basic Change Parts:

- Set of seventy-two slats
- Bottle chute set
- Divider assembly
- Feeder screen

Drive:

Variable D.C. 1 HP with brake.

Controls:

Start and stop push buttons for routine operation. Other switches, timers, counters for set up purposes.

CONSTRUCTION

Basic Machine:

Portable, with floor locks. Stainless steel, anodized aluminum, high-performance coatings are used.

Contact Materials:

Stainless steel, acrylic, other approved plastics.

Size:

Height: 80" (203 cm)	Width: 70" (177.8 cm)	Length: 65" (165.0 cm)
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Net Weight:

2200 lbs. (1000 kg)	Gross Weight: 2800 lbs. (1270 kg)	Crate Size: 6' x 7' x 7' (183 x 214 x 214 cm)
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Electrical:

230-460 / 3 Phase, 60 HZ with 115 volt control.

Compressed Air:

- Used for Bottle Indexing - required 1/2 CFM (14.4 liters/min.) at 30 P.S.I.G. (2.1 K6/cm²) - 1/4 NPT connection.
- With Jet Bar - 34 CFM Flow at 80 P.S.I.G.
- Air supply fitting 1/2" NPT.

OPTIONS

Vacuum Dust Collection & Slat Cleaning System

Rotary cleaning brush, Vacuum take-off at strategic positions.

Vacuum Source:

- 3 HP Dust Collector, 230-460V/60/3 Motor, 1300 CFM, two 4" outlets.
- Option: Absolute filter, silencer.

Bottle Control:

Bottle infeed and backup controls electro-mechanical or photoelectric.

Static Eliminator:

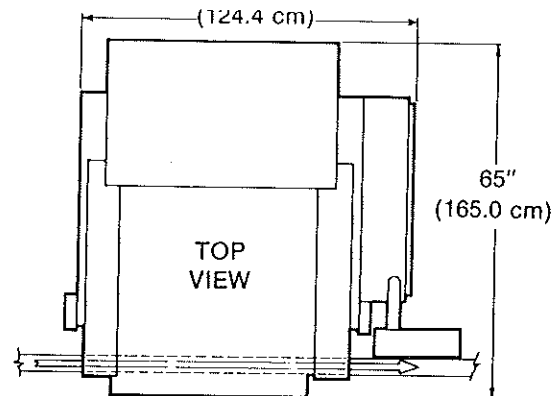
With power supply to remove static charge and the resultant effect on product and performance.



PACKAGE**Lakso**

REFORMER® 450

Tablet & capsule counter-fillers



PERFORMANCE

Estimated Speed Table:

Type of Product		Approximate Speed-Bottles/Minute
Aspirin Tablet	50 count	to 170 bottles per min.
13/32" dia (10.3 mm)	100 count	to 120 bottles per min.
Capsule Size #1	50 count	to 150 bottles per min.
	100 count	to 110 bottles per min.

Speeds are affected by factors such as: size and shape of product, hardness, coating, container size and shape, tolerances of product, type of conveyor. When supplied with product and container samples, we can reasonably estimate speeds.

Basic Change Parts:

- Set of seventy-two slats
- Bottle chute set
- Divider assembly
- Feeder screen

Drive:

Variable D.C. 1 HP with brake.

Controls:

Start and stop push buttons for routine operation. Other switches, timers, counters for set up purposes.

CONSTRUCTION

Basic Machine:

Portable, with floor locks. Stainless steel, anodized aluminum high-performance coatings are used.

Contact Materials:

Stainless steel, acrylic, other approved plastics.

Size:

Height: 80"
(203 cm)

Width: 49"
(124.5 cm)

Length: 65"
(165.0 cm)

Net Weight:

1500 lbs.
(680 kg)

Gross Weight: 2000 lbs.
(900 kg)

Crate Size: 5' x 7' x 7'
(152 x 214 x 214 cm)

Electrical:

230-460 / 3 Phase, 60 HZ with 115 volt control.

Compressed Air:

- Used for Bottle Indexing - requires 1/2 CFM (14.4 liters/min.) at 30 P.S.I.G. (2.1 K6/cm²) - 1/4 NPT connection.
- With Jet Bar - 17 CFM @ 90 P.S.I.G. required.
- Air supply fitting 1/2" NPT.

OPTIONS

Vacuum Dust Collection & Slat Cleaning System

Rotary cleaning brush, Vacuum take-off at strategic positions.

Vacuum Source:

- 1½ HP 1050 CFM, two 4" outlets when used in combination with Model 73 Hoist and Feeder.
- Option: Absolute filter, silencer.

Bottle Control:

Bottle infeed and backup controls electro-mechanical or photoelectric.

Static Eliminator:

With power supply to remove static charge and the resultant effect on product and performance.

PACKAGE**Lakso**

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