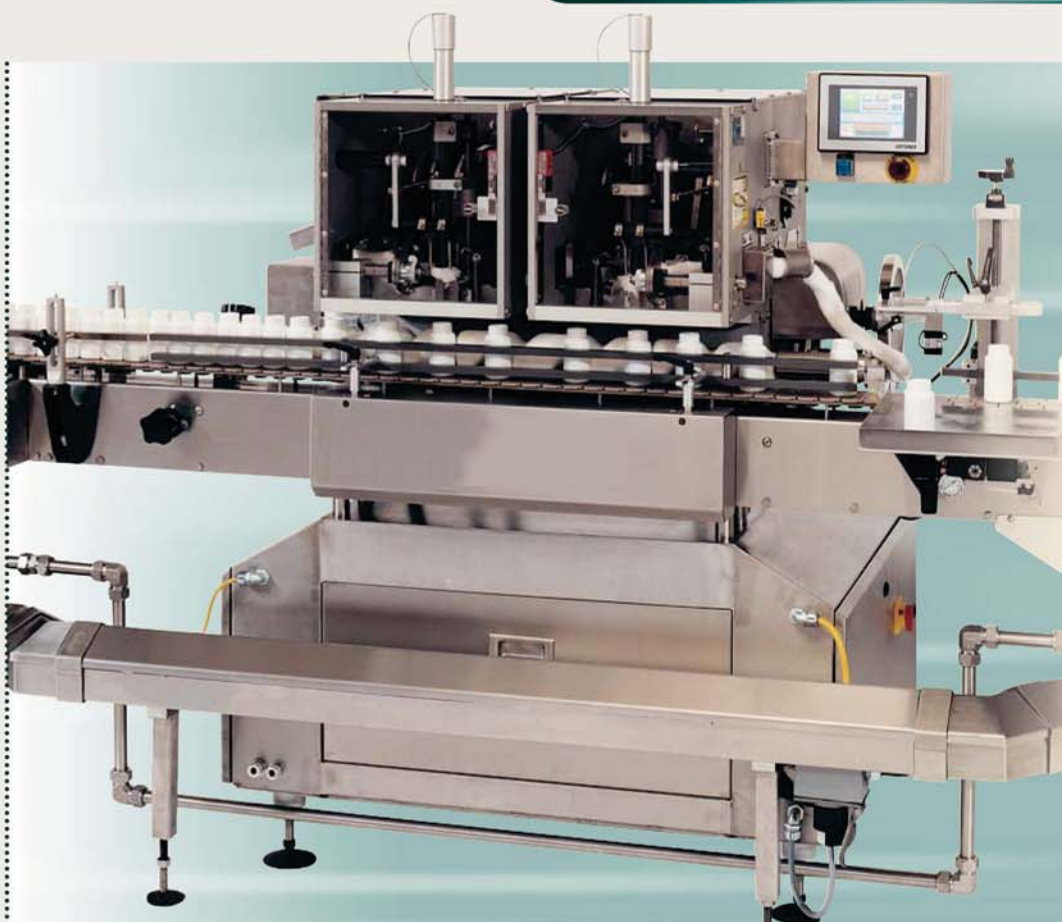


The Lakso brand of NOVA Packaging Systems' cottoners have been setting standards for top performance in the pharmaceutical industry for over four decades.

Lakso developed the first automatic cottoning machine, and over the years has continued to pioneer improvements in automatic cotton insertion techniques.

Lakso offers three sizes of cottoners for high-speed, high-volume lines, as well as low-speed and low-volume lines. Speeds range from 40 to 300 insertions per minute.



▲ **Lakso Cottoners feature unique scissor action for higher product quality!**

General Specifications

Lakso Models	Bottle Handling	Maximum Speed
Series 52	Air cylinder	100 bottles per minute
Series 150	Air cylinder	100 bottles per minute
	Feedscrew	150 bottles per minute
Series 300	Feedscrew	300 bottles per minute



Unique Scissor Action

Specially angled shears cut coil cleanly and uniformly every time – an exclusive Lakso feature. This shear effectively eliminates tails and wisps, helping to keep dust and lint from fouling closure seals, and preventing introduction of moisture into the packaged product. Cut lengths may range from 2" to 7", in weights up to 26 grams per yard.

Lakso Cottoners



▲ Lakso Model 150 Cottoner

Lakso Mating Slats

The Inverted "U" Cushion and Inverted "U" Protection

Lakso pioneered the inverted "U" technique of inserting cushioning material into containers. This technique ensures that bottles are well packed and helps maintain product integrity. For maximum product protection, all Lakso cottoners employ the "U" technique of inserting cushioning material into containers in order to give you a better, cleaner pack and eliminate a stray wisp, which might otherwise foul the closure seal.

Quick Changeovers

Lakso cottoners have the upper edge when it comes to ease of setup and adjustment. Some Lakso models are mounted on portable elevating tables for line flexibility. Two basic insertion parts (tube and plunger) let you make changeovers to fit different bottleneck diameters in minutes. A variable-speed drive regulates cycle speed.

The Long-Range Advantage

In major pharmaceutical plants, Lakso cottoners are improving production by increasing line efficiency and economy. Cost of change parts is lower than that of

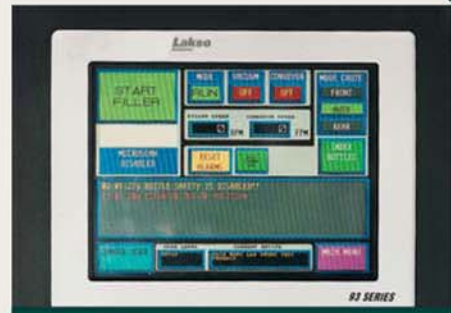
other cottoners, and they're built to last. After 25 years, the first of the "modern" Lakso cottoners is still going strong.

Fully Automatic Operation

Lakso Cottoners cut pre-determined lengths of pharmaceutical cotton, rayon, polyester, polypropylene, or other coil; form each length into an inverted "U" shaped wad; and insert it into the tablet or capsule-filled container . . . all automatically. Bottles are carried along a conveyor and positioned by means of a pneumatic gating system or feedscrew, depending on the model.

Construction And Maintenance

No other cottoner can match Lakso's ability to handle heavy, on-going demand. Heavy-duty construction reduces noise and vibration, wear, and tear. Lakso cottoners are also designed to be trouble-free. Periodic sharpening of special knife blades and routine lubrication and cleaning are the only regular maintenance they require.



Standard PLC Controls

Lakso Cottoners feature an Allen-Bradley SLC503 with Color Touchscreen that offers easier operator interface and readily understood alarm messages, should a problem occur. Allen-Bradley SLC504 upgrade is optional for DH+ capability.



Multi- Insertion

Using air cylinder bottle indexing and multi-insertion capabilities, you can put multiple pieces of cotton in a single bottle – used in conjunction with large containers.

Optional High Cotton / Missing Cotton Station

As part of Lakso's QA capabilities, a high cotton/missing cotton station can be incorporated with any Lakso cottoner.



▲ Standard Kotnr operates from 40-90 BPM. An optional worm feed increases output to 120 BPM. For higher speeds, a Lakso 52 Series cottoner is suggested.

The Kotnr 90

Completely redesigned, the Kalish Kotnr 90 maximizes your competitive advantage. It features speeds of 90 cotton or rayon insertions per minute, instant changeovers, ultra compact design, and rugged sanitary construction.

Fast, fully adjustable, double-acting, indexing fingers synchronize the Kotnr 90 with any packaging line. Alternate star kit indexing system with dedicated starwheels minimize adjustments during changeover, reducing downtime.

PLC controller regulates:

- Cotton Length: 5-22 cm (2" - 9")
- Multishot: 1 to 6 pieces per bottle
- Continuous or bottle activated operation
- No-cotton/machine-stop safety switch



Simple

Guides feed a continuous coil of cotton or rayon to stainless steel rollers. The first pair starts/stops to feed required lengths, while the second pair rotates continually to separate cotton into individual pieces.

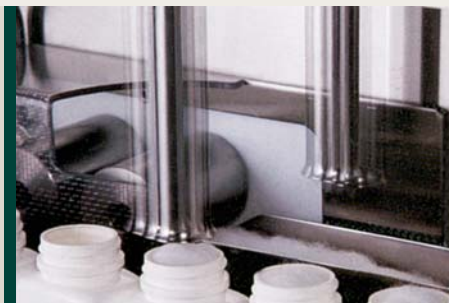
Quick release handle separates rollers for safe and easy loading, while a sensor ensures no-cotton/machine-stop safety.

Fast Changeovers

Twin rotating cotton tubes enable pre-loading of cotton with simultaneous insertion into bottle to simplify operation.

Simply select cotton length and center carriage under tubes. The "n" fold provides neat appearance, easy removal, and ensures ends of cotton do not foul cap seal.

Interchangeable (small, medium, large) cotton tubes and adjustable height stand included as standard to satisfy most bottle sizes.



Trouble-Free

Second push station ensures proper placement, even on stubborn rayons, which may tend to spring out of bottles.

Simple PLC controlled circuits remain synchronized and require minimal maintenance. Modular components allow complete access if servicing is ever required.

Complementary Slat & Electronic Fillers



Lakso Slat Fillers

Both models and variations feature NOVA Packaging Systems' exclusive Micro-Scan® Quality Assurance detection system. It works in conjunction with Lakso's purge system, featuring mechanically-actuated stainless steel pins, to consistently achieve filled containers. Any incidental short-count bottles are detected and rejected.

Lakso Slat Fillers Production Rates

Based on 100 Count Aspirin Size Tablet

RF450

single lane	72 slats	120 bottles per minute
dual lane	72 slats	180 bottles per minute

RF990

single lane	72 slats	240 bottles per minute
dual lane	72 slats	400 bottles per minute

Merrill Slat Fillers

This full line of rugged machines offers the best fit in a wide range of applications. These high-end slat fillers, like our Lakso fillers, feature a special mechanical system, using a steel bar with stainless steel blades, to positively purge product from each slat for consistent bottle filling.

Merrill Slat Fillers Production Rates

Based on 100 Count Aspirin Size Tablet

48-16 AX	48 slats	150 bottles per minute
48-39 AX	48 slats	300 bottles per minute
48-39 HY	48 slats	300 bottles per minute
72-16 AX	72 slats	150 bottles per minute
72-39 AX	72 slats	300 bottles per minute
		400 bottles per minute



Swiftpak Electronic Counting Systems

Swiftpak counters offer versatile counting/filling systems to pack a variety of products accurately. The SV2 Intellisense Counter features a ground-breaking Electrostatic Sensing System that introduces intelligent inspection during the counting process.

Automated liquid and tablet filling systems, including cottoners, cappers, bottle unscramblers, slat and electronic tablet counters, complete line integrations, and validation services

Product brands include Kalish, King, Lakso, Merrill, and Swiftpak

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Take the Next Step.

Please contact us today to discuss your application and explore profitable possibilities.



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