

MINILINE

INTEGRATED COUNTING SYSTEM



IMA  **SAFE**
Packaging Solutions

MINILINE INTEGRATED COUNTING SYSTEM

MINILINE is a bottle transport, filling and capping system that can integrate all the functions required to form a complete tablet and capsule counting line with a simple and superior footprint. The functions available within the MINILINE are:

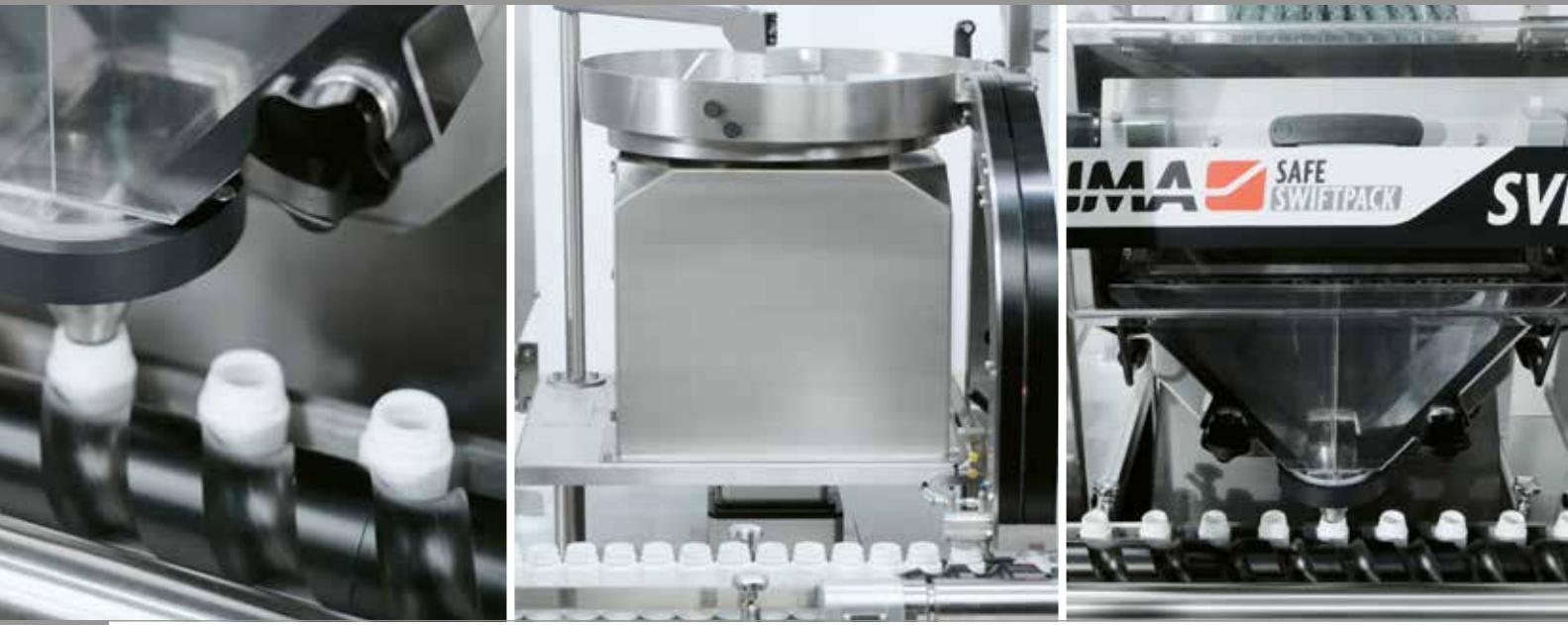
- Desiccant inserting
- Tablet or capsule counting
- Cotton inserting
- Capping





MINILINE can be configured for any product or container requirement. Furthermore it can be very quickly changed to another format. Start up is immediately at the required production speed, thus giving a high OEE even when running small batches. The GMP design allows for easy cleaning with exceptional visibility ensuring no hidden entrapment points. The compact design fits in a fraction of the space of traditional standalone equipment.

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BOTTLE HANDLING

The transport system is able to handle any kind of bottle throughout the process: round, rectangular, square and oval.

DESICCANT INSERTION (OPTIONAL)

Fully integrated Desiccant inserter module dispensing single or multiple desiccant canisters.

TABLET/CAPSULE COUNTING

The new SVIII counter together with optional detection of products using Electrostatic and/or vision guarantee the highest level of count accuracy in the market. Easily accessible and removable lightweight product contact parts for quick changeover without the use of any special devices. No product specific parts ensure maximum flexibility and quick introduction of new products.

1. BOTTLE TRANSPORTATION
2. HMI
3. DESICCANT INSERTION
4. TABLET AND CAPSULE COUNTING
5. COTTON INSERTION
6. CAPPING
7. BOTTLE EXIT





COTTON INSERTION (OPTIONAL)

IMA Lakso's industry standard cotton inserter accommodates the most difficult materials while still allowing for quality induction seals thanks to the positive knife cutting of the cotton to length and insertion into the bottle as an inverted U.

CAPPING

Capping machine designed to apply the cap and close the bottle using a clutch with quick release pneumatically operated mechanically gripping chucks.
Pick and place cap positioning system.
Torque control is adjustable without tools using graduated adjusting rings.
Servo motor torque control for screw on caps and possibility to handle press in or press on caps available as options.

BOTTLE EXIT

Containers are tracked throughout the system and subject to in-process checks with only accepted bottles transferred to the downstream conveyor. This failsafe design ensures the highest level of quality production.



HMI

Large colour touch screen with an easy to navigate menu, password controlled access levels and 21 CFR Part 11 compliant.
Real time bottle status indicator provides an instant visual snapshot of all the bottles within the system.
On-screen diagnostics and graphic displays to aid operators and engineers in troubleshooting.

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SVII counter in case of retrofit application



New SVIII counter

MINILINE is the maximum expression of flexibility, not only in terms of product and container requirements, but also in terms of machine configurations. Customers who already have an existing SVII counter can easily integrate it into the new MINILINE with maximum guaranteed performance. Otherwise the MINILINE can be purchased with the new SVIII integrated counter, the latest counter machine developed by Swiftpack.

WITH A MINIMUM AMOUNT OF CONTACT PARTS AND EASY QUICK REMOVAL, MINILINE ALLOWS FOR A VERY FAST AND EFFICIENT SIZE CHANGEOVER AND CLEANING PROCEDURE.



COUNTING TECHNOLOGIES

The counting accuracy depends on many factors such as counter design, product flow control, gating system and, last but not least sensors. Over the years Swiftpack has developed new solutions in order to improve quality and efficiency.

SENSORS ARE NOT ONLY ABLE TO COUNT PRODUCTS CORRECTLY BUT ALSO TO WORK IN DIFFICULT CONDITIONS.



OPTICAL SENSOR

Extremely reliable, accurate and proven technology, the infrared emitter and receiver is able to scan at very high rate (16 scans per millisecond). A detected product that falls between minimum and maximum Dark Time is considered a good product and counted. Sensors can detect and count two tablets falling closely together but not completely overlapped.

E.F.S. (ELECTROSTATIC FIELD SENSOR)

Suitable for dusty products, E.F.S. is a unique sensor that is able to discriminate between a referenced good product and broken or oversized tablets, empty or half empty capsules. E.F.S. is a dust immune sensor. The system is suitable to handle both capsules and tablets.

The table below indicates the detection capabilities of the optical and E.F.S. sensors for different tablet/capsule damage and scenarios. If they are not detected then they will be counted as a good product, if they are detected then the machine will reject the bottle containing that product.

	Half tablet or capsule	Capped tablet	Tablet chip	Double tablet	Double tablet	Part of tablet	Empty capsule	Half empty capsule
OPTICAL SENSOR	NO	NO	NO	YES (Count as double)	NO	NO	NO	NO
E.F.S. (ELECTROSTATIC FIELD SENSOR)	YES	YES	YES	YES (Count as double)	YES (Count as double)	NO	YES	YES

Tests with active product are needed in order to confirm definitive results.

CAMERA

Counting machines can be equipped with a Camera Vision System to detect cross contamination (products with different colours).



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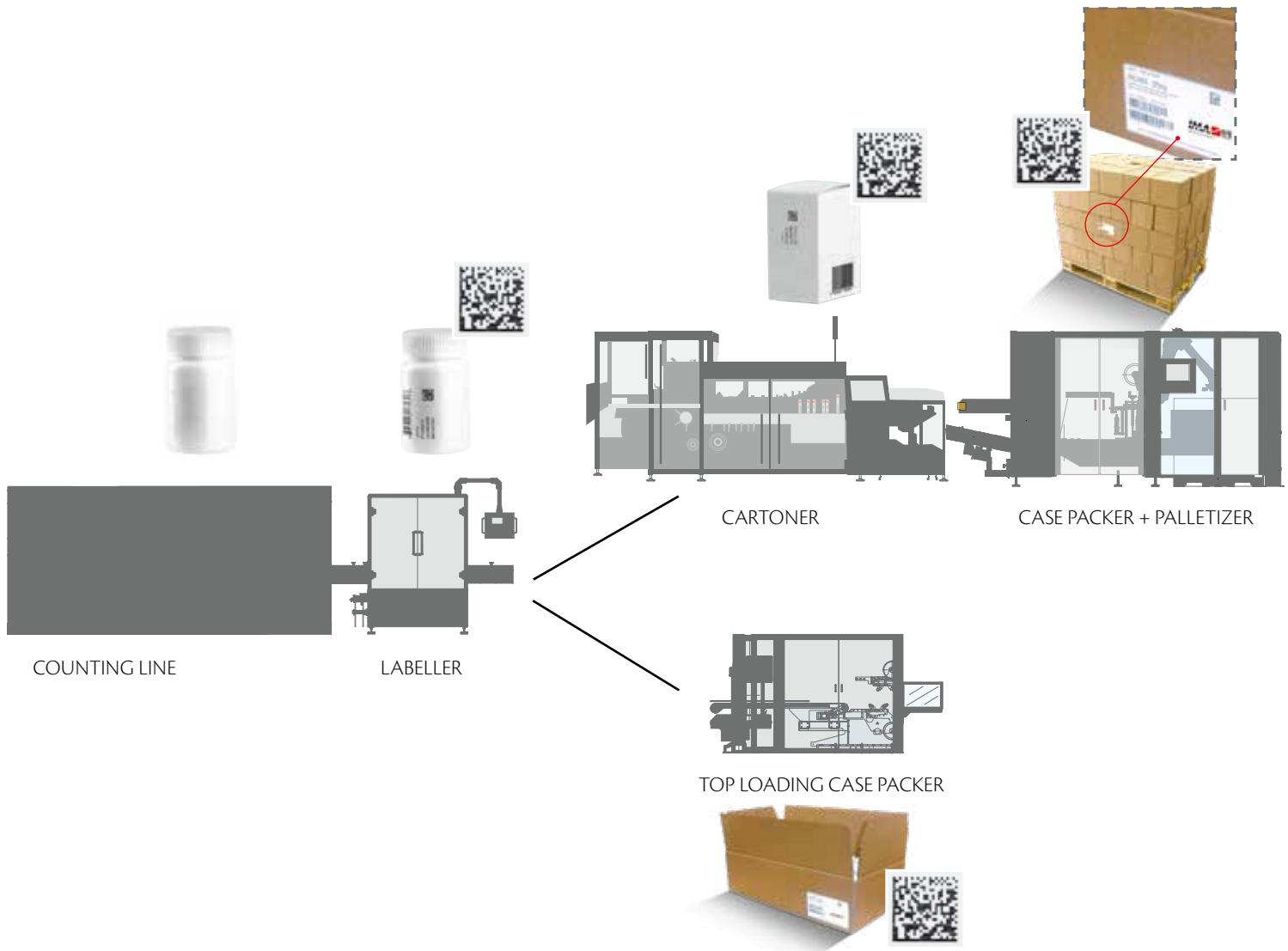


TRACK & TRACE SOLUTIONS



ONE LINE - ONE SOLUTION - ONE SUPPLIER

Together with IMA LIFE and IMA BFB, we at IMA SAFE work actively to find the most functional and GMP solutions starting from the primary packaging (blister, bottles or tubes etc...) to the secondary packaging (cartons, bundles, cases and pallets...). IMA Group is your best partner for supplying complete serialized track and trace lines.



SALES AND SERVICES

IMA Safe's goal is to become a partner for its customers. To respond to every requirement with customised solutions and guarantee maximum flexibility and professionalism.

The relationship IMA Safe builds with its customers does not end with a sale. With after-sales service tailored to the customer's specific needs, it lasts for the duration of the machine's lifespan. That's why IMA Safe can count on high levels of customer retention around the world.



SUPPORT SERVICES

- Telephone online
- On site service
- Remote support assistance
- Production support
- Relocation service
- Spare parts



PRODUCTION SERVICES

- Mechanical and electrical upgrades
- Technical audit



MAINTENANCE SERVICES

- Single inspection by technician on site
- Remote experts consultation
- Maintenance optimization strategy
- E-check
- On site practical maintenance training



TRAINING SERVICES

- Training programs



FORMAT PARTS SERVICES

- Format parts



IMA REMOTE ASSISTANCE SOLUTIONS

IMA Digital Service Solutions aim to offer remote support and to restore production quickly. Through selected tools, an IMA expert remote is able to promptly support the resolution of technical problems occurred on the machine.

Quick-kit

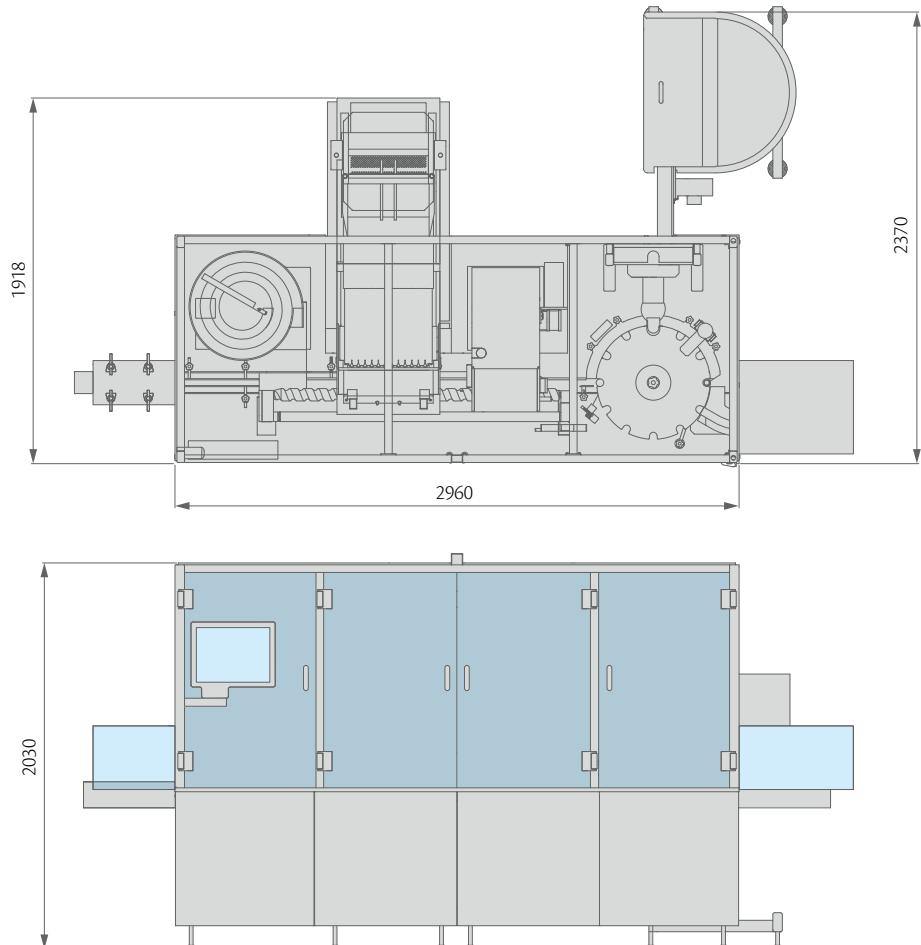
Quick-Kit Solutions consists of an action camera installed on headphones. The technician is able to frame what he is directly observing, speaking in real-time with the remote expert and at the same time receiving audio guidelines to carry on the operations.

Hololens 2

Hololens 2 allows combining different benefits through the use of a new generation viewer. It becomes possible to frame the surrounding environment directly by integrating elements of augmented reality (drawings, diagrams, documentation) shared by the IMA Expert remote.



TECHNICAL DATA



The dimensions are indicative and can vary depending on the optional groups chosen and machine lay-out

Production	Up to 50bpm depending on product and container size and shape
Container Diameter Range	25 mm - 100 mm
Container Height Range	40 mm - 200 mm
Cap Diameter Range	20 mm - 60 mm
Desiccant	1,2 and 3 gram - 1- 10 canisters per bottle
Cotton	Cotton, Rayon and Polyester 50 mm - 100 mm length
Power	400v, 3 Ph, 50 Hz, 40A or 208v, 3 Ph, 60 Hz, 40 A
Air consumption	260 Ltr/Min @ 6 Bar
Power	400v, 3 Ph, 50 Hz, 40A or 208v, 3 Ph, 60 Hz, 40 A

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IMA SWIFTPACK Ltd

3 Arden Road, Arden Forest Industrial Estate, Alcester, Warwickshire B49 6HN, United Kingdom.
Tel: +44 (0)1789 400880 • Fax: +44 (0)1789 400780

