



Make it better.

TRACK & TRACE

Better visibility.

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Welcome to ACG.

We know how hard it can be to get better. That's why, for sixty-five years, we've been getting better at helping make people better.

ACG is a privately owned enterprise that takes a long term relationship approach to business. We believe that everything works better when people work better together.



Everyone on Earth deserves access to better health.

With a presence in 138 countries on six continents, ACG is now the world's largest integrated supplier of components and solutions for enabling the manufacturing of solid dosage forms. We provide hard-shell capsules, barrier packaging materials, manufacturing machinery, and fully integrated traceability solutions.



Track & trace

By connecting serialisation, aggregation and data management, our traceability systems unlock end-to-end supply chain visibility. Both hardware and software are developed side-by-side to help you comply with all major global regulations. This full-stack capability also unlocks seamless L1 to L5 architecture integration.

Inspection technologies

Our inspection technologies visually examine for product defects and packaging details across varied formats. Together with our product integrity and process control systems, they ensure consistent quality, and reduce the risk of costly downstream interventions.

Machinery

ACG provides a full spectrum of oral dosage manufacturing equipment. Our global design team takes a customer-led approach, and we're renowned for exceptional after-sales service.

Capsules

With 'reliability' at the centre of our Capsules business ethos, ACG offers both hard-shell gelatin and HPMC capsules. Our diverse capsule portfolio caters to your formulation needs, and with factories on three continents, we have the scale and reach to guarantee a secure supply to almost anywhere on the planet.

Packaging materials

We supply the world's most extensive range of barrier packaging films and foils, with almost everything produced in-house for better market supply and quality control. Our team of experts is available to provide a perfect solution for your needs.

Everywhere you need us.



Welcome to ACG track & trace.

Better visibility makes it better.

When it comes to pharmaceuticals, there's no room for error. That's why we've built our track & trace solutions to create an unbroken chain of trust – from the moment a product leaves your facility to the moment it reaches the patient.

Our serialisation and aggregation systems work seamlessly, giving every product a verifiable identity that can be traced and trusted across even the most complex global supply chains.

We've designed our systems to meet the strictest international regulations, so you get complete visibility and control at every step. They simplify compliance by making regulatory reporting easier, reduce risk, and protect your brand so you can focus on what matters most.

For us at ACG, traceability is about protecting what's irreplaceable. Safety, and lives.



What makes ACG's track & trace systems better?

1

Track & trace systems built for every regulation

Our serialisation and aggregation solutions comply with all major global regulations, including US (DSCSA), and India (DGFT). Their enterprise-level platforms enable seamless L1 to L5 architecture integration, ensuring pharma companies meet diverse regulatory guidelines worldwide while maintaining supply chain visibility and protecting patients.

2

Human-centric interfaces that simplify workflows

Our system interfaces are streamlined for high-volume manufacturing. They are intuitive and efficient, designed to reduce fatigue and enable production teams to manage compliance reporting and documentation with minimal training.

3

Hardware and software engineered together for scalability

From precision inspection systems to advanced serialisation and aggregation, we deliver seamlessly integrated platforms. This end-to-end full-stack capability ensures higher reliability, easier compliance, and smoother scalability, making us one of the few global providers with complete control across hardware and software.

4

An integrated approach to packaging

As the world's only integrated oral solid dose solution provider (having Capsules, Engineering, Packaging Materials and Inspection divisions), ACG can offer you a service that nobody else can. Our range of equipment and consumables includes almost everything required to produce and pack solid dosage forms.

ACG offers a comprehensive portfolio of blister packaging materials and equipment. We also provide cartoning machines and vision inspection solutions – so your packaging line can be procured almost entirely from a single source.



Everything capsules. Everything tablets.

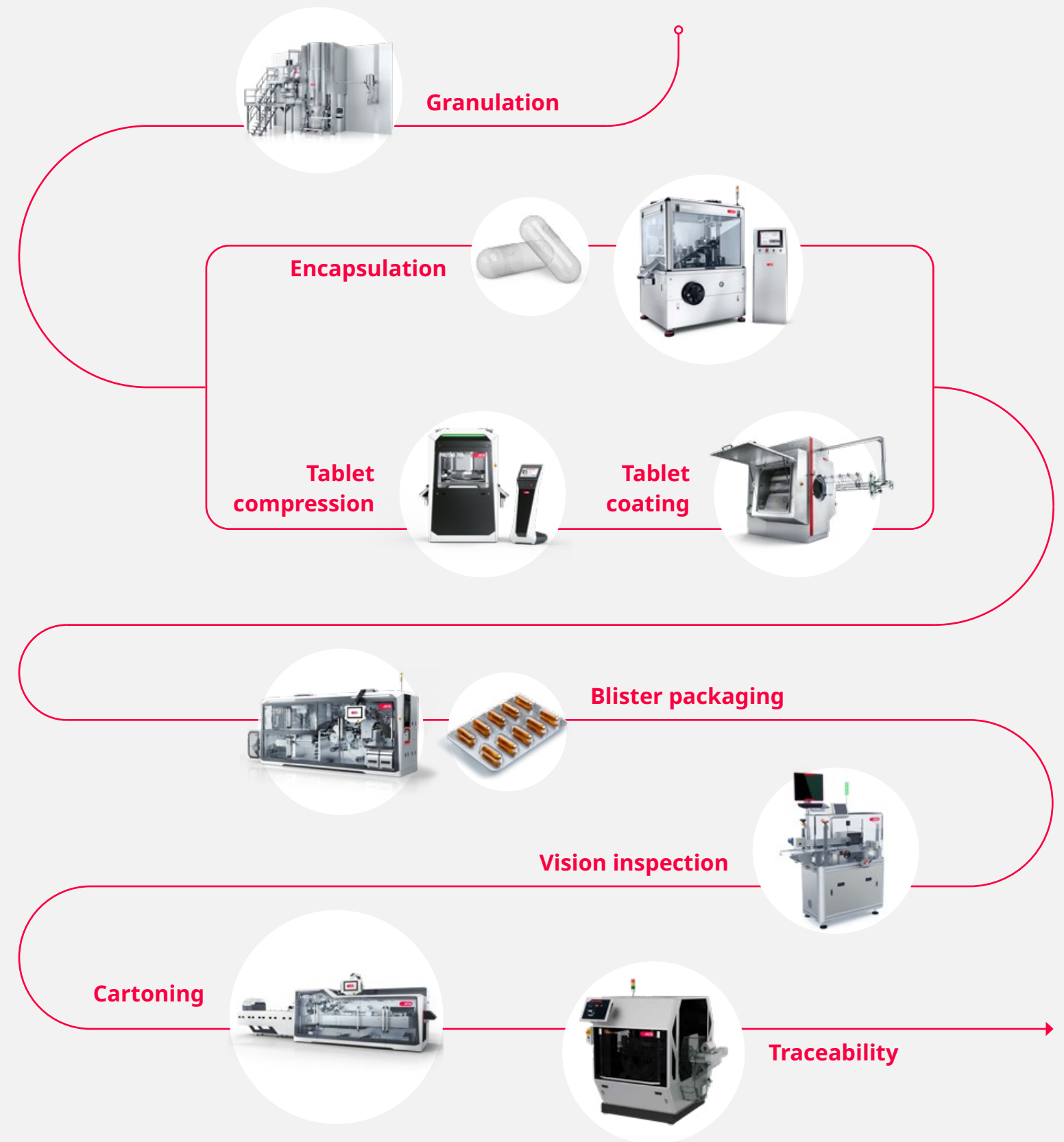
We don't just provide pharmaceutical machinery, but everything you need to run your production efficiently.

Since 1961, ACG has been the global specialist in oral solid dosage (OSD) manufacturing.

Aligned to this, we offer an unmatched range of products and services – from empty hard shell capsules, to granulation and capsule-filling machines, to tablet compression and coating equipment, to packaging materials, packaging machinery and inspection and supply chain traceability solutions.

Our holistic approach to working with every element of the OSD manufacturing ecosystem means only ACG has knowledge of how each product and service impacts the other. Therefore, only we can provide properly considered guidance on improving productivity and efficiencies across an OSD production line.

Whether you have a greenfield OSD-manufacturing project, or are simply thinking of expanding, there is no better partner to consult than ACG.



An overview of our solutions.



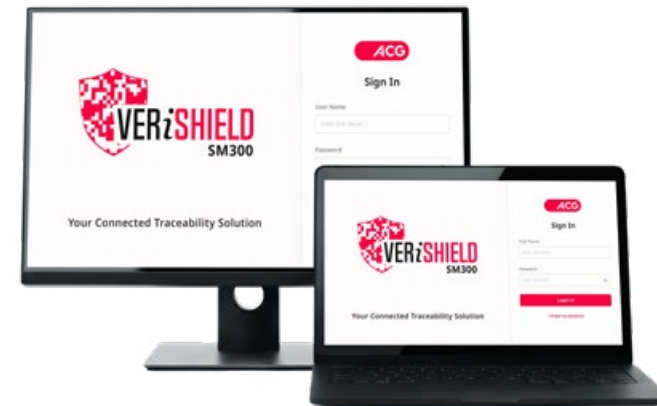
Serialisation

Label and carton serialisation systems for online printing, inspection, and rejection.



Aggregation

Systems for aggregation, inspection and batch coding of serialised products.



Traceability software

A plant management suite for track & trace that ensures data security.

Introducing ACG serialisation systems.

Cartons carry more than the product.

They carry responsibility and risk alike.

By combining printing, verification, and secure data management, our serialisation systems ensure every carton and label is marked accurately, validated in real time, and recorded reliably. They're designed to integrate with existing cartoning lines and support global regulatory requirements. So you can manage high-volume operations with fewer operational and compliance disruptions.



Our serialisation systems at a glance.

Product	Applications
VeriShield® CS series	Serialisation, batch coding, verification and rejection of cartons
VeriShield® LS series	Label printing, serialisation, verification and rejection



VeriShield® CS series

CARTON SERIALISATION SYSTEMS

The VeriShield® CS series consists of a range of accurate and reliable carton serialisation systems. Easy to use, they can serialise cartons of various sizes, from small blister packs to large shipping containers. They comply with regulatory requirements all over the world and are suitable for providing a high level of security and traceability of pharmaceutical products.

Product	Applications
VeriShield® CS11	Online serialisation, batch coding, verification and rejection of cartons
VeriShield® CS12	Offline serialisation, batch coding, verification and rejection of cartons
VeriShield® CS13	Offline serialisation, batch coding, verification and rejection of cartons in constrained production environments
VeriShield® CS14	Online serialisation, batch coding, verification, rejection and checkweighing of cartons
VeriShield® CS18	Online serialisation, batch coding, and verification of larger, heavier cartons
VeriShield® CS19	Online serialisation, batch coding, verification and rejection of cartons for high-throughput production
VeriShield® CS112	Batch coding, serialisation, and verification of cartons with tamper-evident labelling



VeriShield® CS11

ONLINE CARTON SERIALISATION SYSTEM

VeriShield® CS11 is our carton serialisation system for online printing, inspection, and rejection of cartons with defective print.

Applications

Online serialisation, batch coding, verification and rejection of cartons



Features	Benefits
Adjustable carton handling system for multiple carton dimensions	Facilitates quick changeovers and minimises line downtime
Equipped with variable speed control	Allows flexible operation to match upstream and downstream line speeds
Supports track & trace regulations of multiple countries Capable of printing Data Matrix codes as per regulations	A single machine that fulfils diverse requirements of different regulations
Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	Regulatory-compliant and audit-friendly
Plug-and-play integration capability	Enables seamless connection with cartoning machines / checkweighers
Configurable serialisation module with selectable serialised and non-serialised modes	Flexible printing to meet regulatory requirements across different markets
Configurable printing formats	Enables printing on different carton layouts

Technical specifications

Machine dimensions	Length	1350 mm	
	Width	1060 mm	
	Height	1990 ± 60 mm	
Maximum throughput		200 cartons / min (for minimum carton size)	
Carton size range	Minimum	Length	65 mm
		Width	30 mm
		Height	15 mm
	Maximum	Length	200 mm
		Width	200 mm
		Height	150 mm
Maximum carton weight		500 g	
Printing and verification (serialisation)		2D Data Matrix and up to 5 lines of human readable fields	
Rejection system		Encoder based rejection system with lock and key rejection bin	
Safety and interlocks		Continuous rejection monitoring Door interlock Automatic stop on rejection verification failure Automatic stop when rejection bin is full Emergency stop Pneumatic (air pressure) interlock	
Reporting		Batch-wise production reports Audit trail reports	
Regulatory compliance		Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	

VeriShield® CS12

OFFLINE CARTON SERIALISATION SYSTEM

VeriShield® CS12 allows you to serialise your cartons offline. The machine also prints, inspects, and rejects cartons ensuring only the correctly printed and serialised cartons reach the market.

Applications

Offline serialisation, batch coding, verification and rejection of cartons



Features	Benefits
Adjustable carton handling system for multiple carton dimensions	Facilitates quick changeovers and minimises line downtime
Equipped with variable speed control	Allows flexible operation to match upstream and downstream line speeds
Supports track & trace regulations of multiple countries	A single machine that fulfils diverse requirements of different regulations
Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	Regulatory-compliant and audit-friendly
Configurable serialisation module with selectable serialised and non-serialised modes	Flexible printing to meet regulatory requirements across different markets

Technical specifications

Machine dimensions	Length		1750 mm
	Width		1050 mm
	Height		1840 ± 65 mm
Maximum throughput			200 cartons / min (for minimum carton size)
Carton size range	Minimum	Length	65 mm
		Width	60 mm
	Maximum	Length	300 mm
		Width	200 mm
Rejection system			Encoder based rejection system with lock and key rejection bin
Interlock and safety			Emergency stop Interlock for low and high pneumatic air pressure
Report types			Batch-wise report Audit reports
Printing and verification (serialisation)			2D Data Matrix and human readable text
Rejection system			Encoder based rejection system with lock and key rejection bin
Safety and interlocks			Continuous rejection monitoring Door interlock Automatic stop on rejection verification failure Automatic stop once the rejection bin is full Emergency stop Pneumatic (air pressure) interlock Carton magazine level low indication
Reporting			Batch-wise production reports Audit trail reports
Regulatory compliance			Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11

VeriShield® CS13

OFFLINE CARTON SERIALISATION SYSTEM

VeriShield® CS13 is a compact, high-speed offline carton serialisation system designed for pharmaceutical packaging environments with space constraints and high throughput requirements. The system performs offline printing, verification, and automatic rejection to ensure that only correctly serialised and compliant cartons are released into the supply chain.

With functionality equivalent to VeriShield® CS11 and a significantly smaller footprint, VeriShield® CS13 delivers enhanced productivity while maintaining full compliance with global track & trace regulations and data integrity requirements.

Applications

Offline serialisation, batch coding, and verification of cartons



Features	Benefits
Compact machine footprint	Optimises floor space in constrained production environments
High-speed performance of up to 300 cartons / min	Increases throughput for high-volume serialisation requirements
Adjustable carton handling system for multiple carton dimensions	Facilitates quick changeovers and minimises line downtime
Equipped with variable speed control	Allows flexible operation to match upstream and downstream line speeds
Offline printing of Data Matrix codes and human-readable text	Ensures compliant serialisation in accordance with country-specific regulations
Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	Regulatory-compliant and audit-friendly
Plug-and-play integration capability	Enables seamless connection with manual packaging lines
Configurable serialisation module with selectable serialised and non-serialised modes	Flexible printing to meet regulatory requirements across different markets

Technical specifications

Machine dimensions	Length	900 mm	
	Width	900 mm	
	Height	1870 ± 65 mm	
Maximum speed		300 cartons / min (for minimum carton size)	
Carton size range	Minimum	Length	65 mm
		Width	30 mm
		Height	15 mm
	Maximum	Length	180 mm
		Width	90 mm
		Height	90 mm
Maximum carton weight		250 g	
Safety and interlocks		Emergency stop, pneumatic (air pressure) interlock, door interlock, rejection verification, reject bin full indication	
Reporting		Production batch reports, audit trail reports	
Regulatory compliance		Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	

VeriShield® CS14

ONLINE CARTON SERIALISATION SYSTEM

VeriShield® CS14 is a carton serialisation machine equipped with a check weigher. The machine is adjustable to cartons of different dimensions and can be easily integrated with various carton packaging machines. Further, you can quickly change over between multi-carton sizes and, in the end, get a consolidated production report.

Applications
 Online serialisation, batch coding, verification, rejection and checkweighing of cartons



Features	Benefits
Compact machine footprint, with integrated checkweighing, printing and inspection capabilities	Optimises floor space in constrained production environments
Online serialisation, barcode printing, data printing (GTIN, expiry, batch number and unique serial number as per GS1 guidelines)	Printing and inspection as per specific regulatory requirements
Configurable serialisation module with selectable serialised and non-serialised modes	Flexible printing to meet regulatory requirements across different markets
Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	Regulatory-compliant and audit-friendly

Technical specifications

Machine dimensions	Length	1750 mm	
	Width	1060 mm	
	Height	1950 ± 60 mm	
Maximum throughput		150 cartons / min (for minimum carton size)	
Carton size range	Minimum	Length	80 mm
		Width	30 mm
		Height	15 mm
	Maximum	Length	180 mm
		Width	90 mm
		Height	90 mm
Carton weight	Minimum	10 g	
	Maximum	500 g	
Inspection area (FOV)		50 mm × 25 mm	
Safety and interlocks		Emergency stop Label low / carton closing / backdoor interlock Pneumatic pressure interlock Front door interlock Acrylic guard interlock	
Reporting		Batch-wise production reports Audit trail reports	
Regulatory compliance		Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	

VeriShield® CS18

ONLINE CARTON SERIALISATION SYSTEM

VeriShield® CS18 is an online carton serialisation system designed for pharmaceutical secondary packaging applications involving larger carton sizes and higher carton weights. The system performs printing, verification, and automatic rejection to ensure that only correctly coded and validated cartons proceed downstream.

Built on our proven VeriShield® CS platform, CS18 ensures compliance with global track & trace regulations while offering enhanced vision capability and mechanical stability for handling larger-format cartons.

Applications

Online serialisation, batch coding, and verification of larger, heavier cartons



Features	Benefits
Supports larger carton sizes and higher carton weights	Enables reliable serialisation across diverse secondary packaging formats
Adjustable guides for multiple carton dimensions	Facilitates quick changeovers and minimises line downtime
Integrated vision system with variable speed control	Ensures accurate inspection while matching upstream and downstream line speeds
Online printing of Data Matrix codes and human-readable text	Meets country-specific serialisation and coding requirements
Compliant with 21 CFR Part 11 and EudraLex Volume 4: Annex 11	Regulatory-compliant and audit-friendly
Plug-and-play integration capability	Enables seamless connection with manual packaging and cartoning lines
Operator-friendly HMI interface	Simplifies system setup, monitoring, and maintenance

Technical specifications

Machine dimensions	Length	1350 mm	
	Width	1060 mm (closed doors)	
	Height	1990 ± 60 mm	
Maximum speed		200 cartons / min (for minimum carton size)	
Carton size range	Minimum	Length	65 mm
		Width	30 mm
		Height	15 mm
	Maximum	Length	285 mm
		Width	200 mm
		Height	150 mm
Carton weight		10 g to 1 kg	
Safety and interlocks		Emergency stop, pneumatic (air pressure) interlock, door interlock, rejection verification / acceptance verification, reject bin full indication	
Regulatory compliance		Compliant with 21 CFR Part 11 and EudraLex Volume 4: Annex 11	

VeriShield® CS19

ONLINE CARTON SERIALISATION SYSTEM

VeriShield® CS19 is a carton printing, inspection and rejection system for complying with global regulations. The system is equipped with serialisation printing equipment and advanced vision inspection technology with an operator-friendly interface.

Applications
 Online serialisation, batch coding, verification and rejection of cartons



Features	Benefits
Advanced online printing and vision inspection system	Enables real-time serialisation compliance
High-speed machine with a compact footprint	Optimises productivity and usage of floor space
Ergonomic, aesthetic design with operator-friendly interface evident label (through sensor-based input)	Easy to operate and maintain the system
Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	Regulatory-compliant and audit-friendly

Technical specifications

Machine dimensions	Length	1564 mm	
	Width	890 mm	
	Height	2026 mm	
Maximum throughput		400 cartons / min	
Carton size range	Minimum	Length	65 mm
		Width	30 mm
		Height	15 mm
	Maximum	Length	200 mm
		Width	200 mm
		Height	150 mm
Carton weight		50 g to 1 kg	
Printing and verification (serialisation)		2D Data Matrix and human readable text	
Rejection system		Time / encoder-based rejection system with pneumatic cylinder and rejection bin	
Safety and interlocks		Machine ready interlock Continuous rejection monitoring Electrical panel door interlock Automatic stop on rejection verification failure Automatic stop when rejection bin is full Emergency stop Pneumatic (air pressure) interlock	
Regulatory compliance		Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	
Reporting		Batch-wise production reports Audit trail reports	

VeriShield® CS112

CARTON SERIALISATION SYSTEM

VeriShield® CS112 is designed to handle everything in a single process, from carton serialisation, to tamper-evident labelling, to comprehensive inspection. The system not only prints and inspects cartons, but also rejects any that are serialised incorrectly or lack tamper-evident labels, thereby safeguarding product integrity and consumer trust.

The operator-friendly interface streamlines operations, allowing for quick adjustments and easy monitoring of the system's performance.

Applications

Batch coding, serialisation, and verification of cartons and tamper-evident labelling



Features	Benefits
Online rejection through sensor-based serialisation inspection of tamper evident labels	A single machine for printing, inspection, and label application verification and rejection
High-speed performance of up to 300 cartons / min	Increases throughput for high-volume serialisation requirements
Compact machine footprint	Optimises usage of floor space
Uses servo motors for precise carton movement	Delivers superior accuracy
Accessibility of both applicators from the same side	Easy accessibility for machine setting
Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	Regulatory-compliant and audit-friendly

Technical specifications

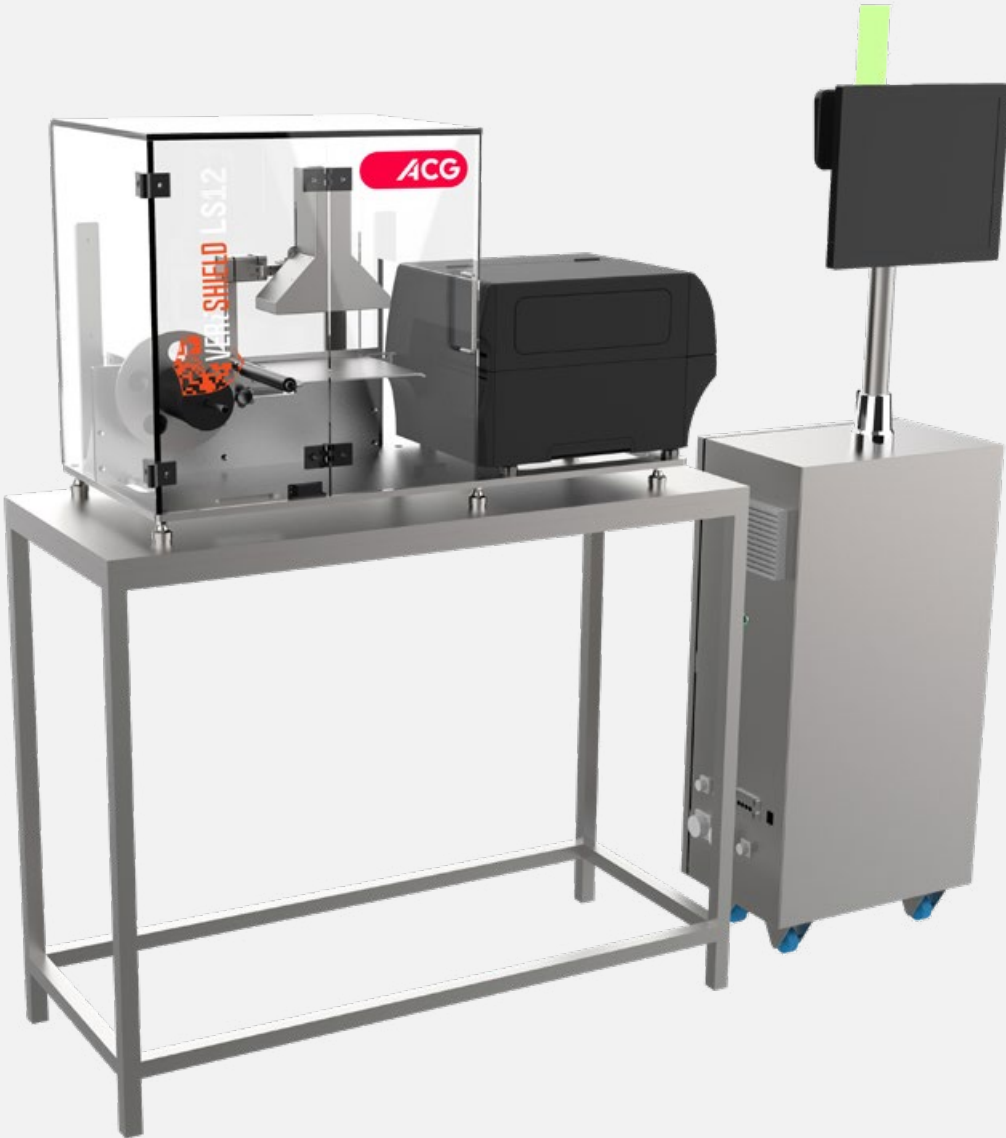
Machine dimensions	Length	2114 mm	
	Width (with closed doors)	1040 mm	
	Height	2086 ± 60 mm	
Maximum throughput		Up to 300 packs / min (for minimum carton size)	
Carton size	Minimum	Length	65 mm
		Width	40 mm
		Height	15 mm
	Maximum	Length	200 mm
		Width	150 mm
		Height	150 mm
Inspection area (FOV)		50 mm × 25 mm	
Regulatory compliance		Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	

VeriShield® LS series

LABEL SERIALISATION SYSTEMS

The VeriShield® LS series is designed to uniquely identify and serialise labels, providing a comprehensive solution for product authentication, traceability, and supply chain security.

Product	Applications
VeriShield® LS11	Online label printing, serialisation, verification with referencing, and parent-child aggregation
VeriShield® LS12	Offline label printing, serialisation, verification and rejection



VeriShield® LS11

ONLINE LABEL SERIALISATION SYSTEM

VeriShield® LS11 is our label serialisation system for online printing and inspection of labels.

Applications

Online label printing, serialisation, verification with referencing, and parent-child aggregation



Features	Benefits
In-line label printing and inspection functionality	Can be seamlessly integrated with existing bottling line for serialisation
High-speed machine with a compact footprint	Optimises productivity and usage of floor space
Supports track and trace regulations of multiple countries	A single machine that fulfils diverse requirements of different regulations
Plug-and-play integration capability	Enables seamless connection with bottling lines
Operator-friendly human-machine interface	Simplifies system setup, monitoring, and maintenance
Two-camera architecture with dedicated cameras for label serialisation verification and referencing	Enables seamless downstream aggregation
Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	Regulatory-compliant and audit-friendly

Technical specifications

Maximum throughput	120 products / min
Camera configuration	Camera 1: serialisation inspection Camera 2: referencing for aggregation
Inspection area (FOV)	50 mm × 25 mm
Rejection system	Encoder-based rejection system with pneumatic cylinder and rejection bin
Safety and interlocks	Emergency stop Pneumatic (air pressure) interlock Rejection verification
Compliance and certifications	Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11
Reporting	Batch-wise production reports Audit trail reports

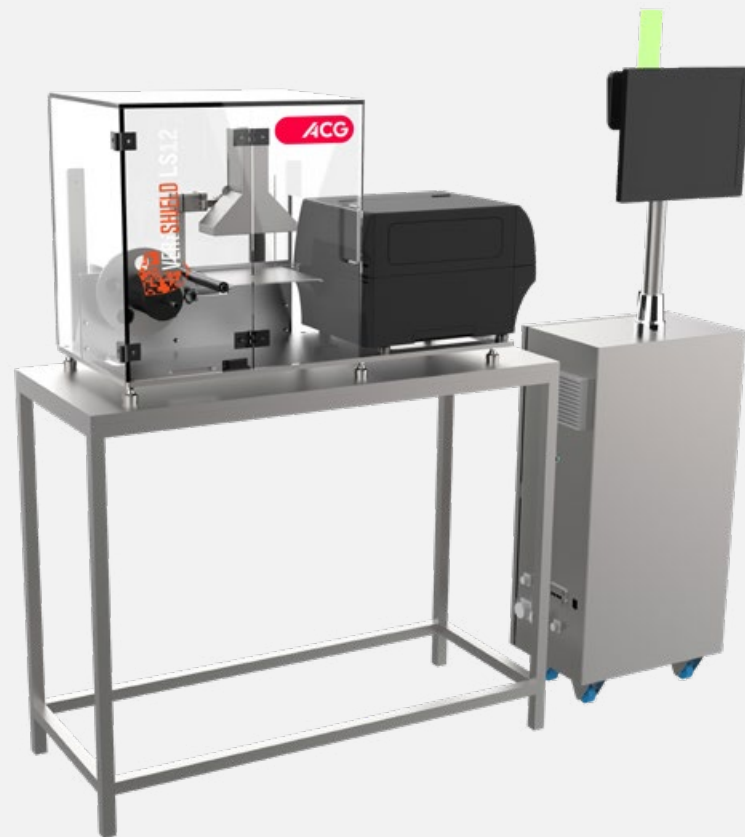
VeriShield® LS12

OFFLINE LABEL SERIALISATION SYSTEM

VeriShield® LS12 is a stand-alone label serialisation system for inspection, and rejection of labels with defective print.

Applications

Offline label printing, serialisation, verification and rejection



Features	Benefits
Stand-alone label printing, inspection and rejection functionality	Suitable for low volume production facilities
High-speed machine with a compact footprint	Optimises productivity and usage of floor space
Integrated label winder system	Controlled label handling and easy operation
Operator-friendly human-machine interface	Simplifies system setup, monitoring, and maintenance
Supports track and trace regulations of multiple countries	A single machine that fulfils diverse requirements of different regulations
Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	Regulatory-compliant and audit-friendly

Technical specifications

Maximum throughput	12 labels / min
Rejection system	Machine stop
Safety and interlocks	Emergency stop Pneumatic (air pressure) interlock Automatic stop on defect detection
Regulatory compliance	Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11
Reporting	Batch-wise production reports Audit trail reports

Introducing ACG aggregation systems.

Simpler supply chain integrity.

Our aggregation solutions are designed to work with serialisation systems for structured data exchange, shipment validation, and hierarchies that are reliable across markets.

Both hardware and software components integrate seamlessly with packaging lines and enterprise platforms. Their intuitive, human-centric interfaces help teams manage aggregation and documentation with minimal training and fewer disruptions.



Our aggregation systems at a glance.

Product	Applications
VeriShield® CA series	Aggregation, batch coding and verification of bottles and cartons
VeriShield® BA series	Batch coding, verification and aggregation of bottles

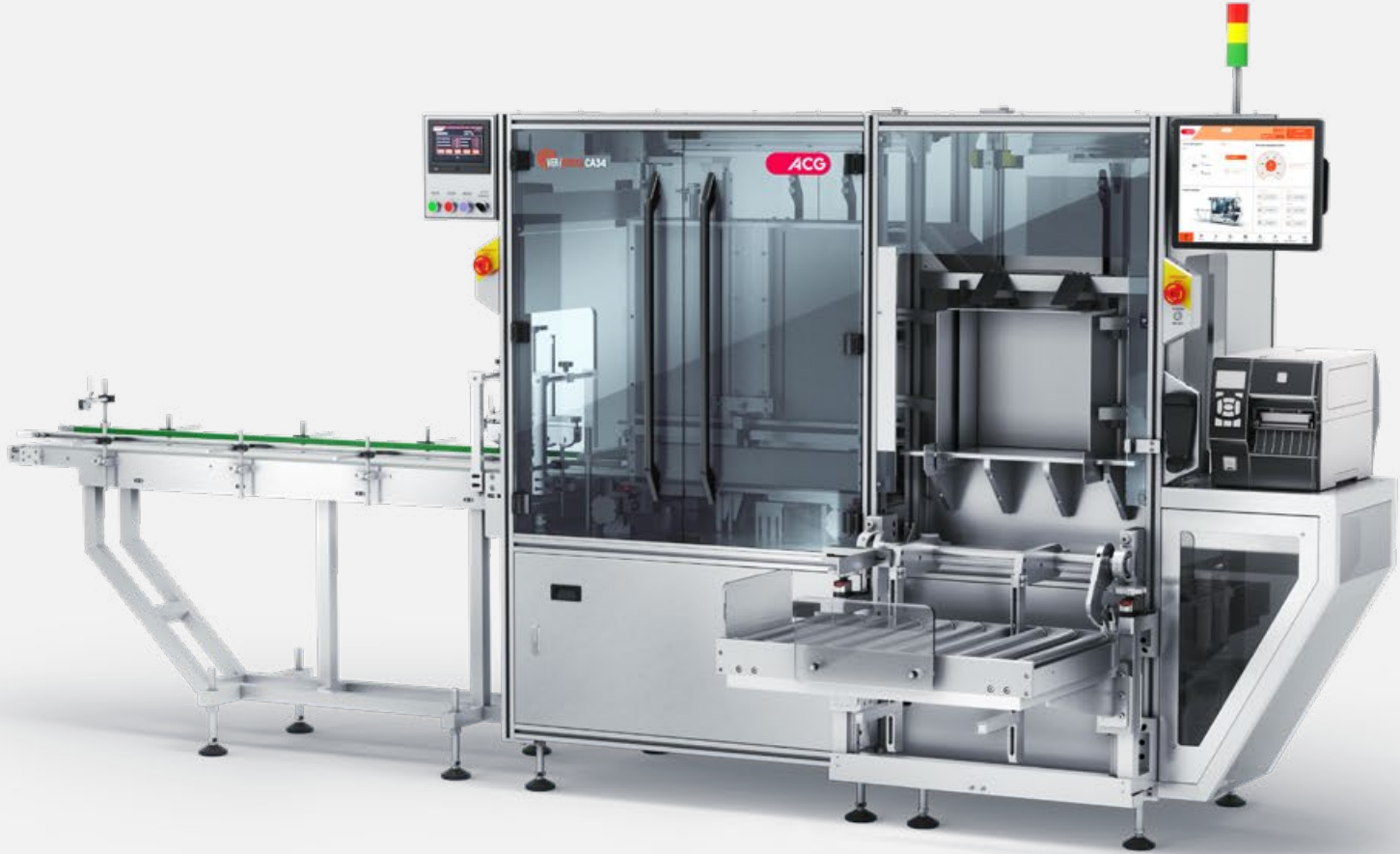


VeriShield® CA series

CARTON AGGREGATION SYSTEMS

Embodying a world-class cGMP industrial design, the VeriShield® CA series makes your carton and bottle aggregation process a whole lot faster and easier.

Product	Applications
VeriShield® CA31	Label printing with aggregation, inspection, batch coding and verification of bottles and cartons
VeriShield® CA34	Semi-automatic case packing with verification and aggregation of serialised cartons
VeriShield® CA36	Multi-level aggregation and verification across pharmaceutical packaging hierarchies
VeriShield® CA42	Manual aggregation, inspection, batch coding and printing of bottles and cartons



VeriShield® CA31

BOTTLE AND CARTON AGGREGATION SYSTEM

VeriShield® CA31 is an intermediate aggregation system equipped with a label printer. It has an automated camera and scanning system with a label printer that performs aggregation, inspection, batch coding, and verification.

Applications

Label printing with aggregation, inspection, batch coding and verification of bottles and cartons



Features	Benefits
Aggregation of unit products (cartons) to cases / shippers / outer cartons by decoding 2D barcodes on one carton or multiple cartons	Aggregation process is in accordance with packaging operation Compliant with pack-and-scan, scan-and-pack processes
Detection of non-GS1 Data Matrix, incorrect batch details, excess and less unit product quantity in case and shipper boxes	Reliable and accurate identification and verification of child codes and verification of printed barcodes
Multi-layer aggregation support	Enables aggregation across multiple carton layers
Autofocus for different bottle / carton / shipper sizes through distance invariant imaging technology (DIIT)	Makes automatic adjustments specific to the packaging operation process
Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	Regulatory-compliant and audit-friendly

Technical specifications

Machine dimensions	Length	1250 mm
	Width	1280 mm
	Height	2093 mm
Inspection area (FOV)		600 mm × 400 mm
Shipper height		400 mm (for cartons of all sizes)
Maximum speed		8 labels / min
Regulatory compliance		Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11
Reporting		Batch-wise production reports Audit trail reports

VeriShield® CA34

CARTON AGGREGATION SYSTEM

The VeriShield® CA34 is a sophisticated semi-automatic case packer designed for efficient verification and aggregation of serialised cartons, with an optional print-and-apply feature for enhanced traceability. It seamlessly automates carton stacking while its advanced integrated camera technology ensures complete serialisation and aggregation compliance, improving accuracy and eliminating packing errors.

The VeriShield® CA34 is a cost-effective solution, delivering high performance and is suitable for carton-based packaging environments where precision and compliance cannot be compromised.

Applications
Semi-automatic case packing with verification and aggregation of serialised cartons



Features	Benefits
Pneumatically operated shipper loading	Capable of decoding multiple 2D codes
Automated carton stacking	A single machine that fulfils diverse requirements pertaining to different regulations
High-resolution camera-based inspection	Makes automatic multilayer adjustments specific to the packaging operation process
Compact machine footprint	Optimises usage of floor space
Operator-friendly human-machine interface	Simplifies system setup, monitoring, and maintenance
Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	Regulatory-compliant and audit-friendly

Technical specifications

Machine dimensions	Length	4025 mm	
	Width	1600 mm	
	Height	1800 mm	
Infeed carton speed		200 cartons / min	
Shipper throughput		2 – 12 shippers / min	
Inspection area (FOV)		580 mm × 400 mm	
Input carton dimensions	Minimum	Length	85 mm
		Width	20 mm
		Height	15 mm
	Maximum	Length	200 mm
		Width	150 mm
		Height	90 mm
Matrix formation specifications	Minimum	Length	150 mm
		Width	150 mm
		Height	170 mm
	Maximum	Length	580 mm
		Width	400 mm
		Height	400 mm
Outfeed shipper box specifications	Minimum	Length	160 mm
		Width	160 mm
		Height	180 mm
	Maximum	Length	590 mm
		Width	410 mm
		Height	410 mm
Optional add-ons		Print-and-apply system Taping machine	
Reporting		Batch-wise production reports Audit trail reports	
Regulatory compliance		Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	

VeriShield® CA36

CARTON AGGREGATION SYSTEM

VeriShield® CA36 is a hybrid aggregation system designed to support multiple aggregation levels within a single machine. Built with a cGMP-compliant industrial design, the system integrates dual label printers with advanced vision and scanning architecture to enable flexible aggregation workflows across pharmaceutical packaging lines.

The system can be configured to operate at bundle + shipper or shipper + pallet levels. This architecture ensures accurate creation and verification of parent-child relationships across multiple hierarchy levels while maintaining full regulatory compliance and data integrity.

Applications

Multi-level aggregation and verification across pharmaceutical packaging hierarchies



Features	Benefits
Hybrid aggregation architecture supporting dual operational configurations	Enables multiple aggregation workflows within a single system
Dual integrated label printers	Allows simultaneous printing for different aggregation levels
Configurable operation for bundle + shipper aggregation	Supports bundle-to-shipper aggregation workflows
Configurable operation for shipper + pallet aggregation	Enables shipper-to-pallet aggregation within the same platform
Aggregation using 2D barcode decoding	Ensures accurate capture and linkage of serialised child units
Compliance with pack-and-scan, scan-and-pack processes	Aligns seamlessly with standard pharmaceutical packaging operations
Detection of non-GS1 Data Matrix codes, incorrect batch data, excess or missing units	Prevents aggregation errors and safeguards data integrity
Integrated vision system for verification of child codes and printed labels	Ensures reliable validation before hierarchy assignment
Multi-layer aggregation capability	Supports aggregation across multiple packaging hierarchy levels
Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	Regulatory-compliant and audit-friendly

Technical specifications

Machine dimensions	Length	1440 mm
	Width	1280 mm
	Height	2093 mm
Bottle type supported		PET bottles
Inspection area (FOV)		600 mm × 400 mm
Regulatory compliance		Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11

VeriShield® CA42

CARTON AGGREGATION SYSTEM

VeriShield® CA42 is a manual hybrid aggregation system equipped with a label printer and handheld scanner. It performs aggregation, inspection and batch coding of serialised products where automated vision systems are not required. Its flexible architecture accommodates multiple aggregation configurations, making it suitable for low-speed lines and rework stations.

Applications

Manual aggregation, inspection, batch coding and printing of bottles and cartons



Features	Benefits
Manual hybrid aggregation architecture	Flexible operation across multiple aggregation levels
Decodes GS1-128 linear barcode or GS1 DataMatrix and verifies as per batch details and serial numbers	Reliably and accurately verifies child barcodes and printed parent barcode during the aggregation process Samples printed labels
Multiple language printing for a static data field	Label can be printed for respective markets as per local language requirements
Compact design with operator-friendly label/ribbon changeover process	Operator-friendly machine design
Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	Regulatory-compliant and audit-friendly

Technical specifications

Machine dimensions	Length	640 mm
	Width	580 mm
	Height	1625 ± 25 mm
Software (functional) specifications		Back-up and restore of data supported
User / role management		Centralised VeriShield® server authentication
Supported operating modes		Intermediate aggregation (bundle level) Late intermediate aggregation (shipper level) Final aggregation (pallet level) Intermediate + late intermediate aggregation (bundle + shipper level) Late intermediate + final aggregation (shipper + pallet level)
Regulatory compliance		Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11
Reporting		Batch-wise production reports Audit trail reports

VeriShield® BA series

BOTTLE AGGREGATION SYSTEMS

VeriShield® BA series enables the seamless tracking of products from production to distribution. It has been designed to efficiently manage and track the movement of individual bottles within larger packaging units by creating a hierarchical relationship between individual bottles and their respective packaging units.

Product	Applications
VeriShield® BA21	Label printing with top-sert helper code referencing, scanning and verification of bottles
VeriShield® BA24	Bottom reference code decoding and verification for pharmaceutical PET bottles
VeriShield® BA26	Automatic bottle case packing with aggregation and inspection of bottles
VeriShield® BA31	Batch coding, verification and aggregation of bottles



VeriShield® BA21

BOTTLE AGGREGATION SYSTEM

VeriShield® BA21 is an intermediate helper code referencing unit with top-sert helper code referencing functionality for aggregating bottles. Equipped with side and top cameras, it performs label printing for aggregated units, and verifies printed barcodes. It comes with an operator-friendly interface and does not require a handheld scanner.

It is compatible with shrink wrap bundles of plastic or PET bottles with the bottom reference code. Additionally, this system is also suitable for shrink-wrapped carton bundles.

Applications

Label printing with top-sert helper code referencing, scanning and verification of bottles



Features	Benefits
Performs side and top barcode scanning with a high-speed referencing unit	Maximises throughput for high-volume production requirements
Capable of referencing for downstream aggregation	Supports reliable parent-child relationships during aggregation
Operator-friendly human-machine interface	Simplifies system setup, monitoring, and maintenance
Plug-and-play integration capability with a multi-functional, modular design	Enables seamless connection with packaging line conveyors
Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	Regulatory-compliant and audit-friendly

Technical specifications

Machine dimensions	Length	660 mm
	Width	1350 mm
	Height	2000 mm
Maximum throughput		200 products / min
Rejection system		Encoder based rejection system with pneumatic cylinder and rejection bin
Safety and interlocks		Rejection verification Rejection bin status monitoring
Regulatory compliance		Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11
Reporting		Batch-wise production reports Audit trail reports

VeriShield® BA24

BOTTLE AGGREGATION SYSTEM

The VeriShield® BA24 is an intermediate bottle bottom code referencing system designed for pharmaceutical bottling lines using pre-printed 2D Data Matrix codes on bottle bottoms. The system decodes bottom reference codes and establishes a verified relationship with the serialised label applied to the bottle.

Built on a fully camera-based architecture, BA24 enables accurate bottle-level referencing to support downstream aggregation processes, ensuring reliable hierarchical relationships from bottle to higher packaging levels.

Applications

Bottom reference code decoding and verification for pharmaceutical PET bottles



Features	Benefits
Camera-based decoding of pre-printed bottle bottom 2D Data Matrix codes	Enables referencing without additional printing or rework
360° bottle label inspection with integrated bottom code identification	Ensures correct association between the serialised label and the bottom reference code
Fully camera-based inspection architecture	Eliminates dependency on handheld scanners and reduces manual intervention
High-speed referencing capability of up to 200 bottles / minute	Increases throughput for high-volume pharmaceutical bottling
GS1 Data Matrix verification capability	Ensures compliance with global serialisation standards
Compact, robust industrial design	Enables easy integration with existing bottling and packaging lines
Centralised VeriShield® authentication and user management	Provides secure access control and audit-ready operation in regulated environments
Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	Regulatory-compliant and audit-friendly

Technical specifications

Machine dimensions	Length	2370 mm
	Width	1400 mm
	Height	2100 ± 60 mm
Maximum speed		200 bottles / min
Bottle diameter × height	Minimum	35 mm × 70 mm
	Maximum	120 mm × 225 mm
Safety and interlocks		Emergency stop, low air pressure interlock, rejection verification / acceptance verification, reject bin full indication
Regulatory compliance		Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11

VeriShield® BA26

BOTTLE AGGREGATION SYSTEM

A state-of-the-art fully automatic bottle case packer engineered for high-speed, error-free bottle packing, aggregation, and compliance in pharmaceutical and consumer packaging environments. VeriShield® BA26 maximises throughput with precise product handling and advanced track-and-trace serialisation features, making it ideal for regulated industries requiring robust traceability.

Applications

Automatic bottle case packing with aggregation and inspection of bottles



Features	Benefits
Fully automatic bottle pick and place system	Ensures accurate, efficient handling and placement of bottles into cases
Integrated camera technology	Supports aggregation and inspection of all bottle codes for regulatory compliance
High-speed performance of up to 2–10 cases / min	Increases throughput for high-volume production requirements
Flexible bottle size adaptation	Easily adjustable to accommodate a variety of sizes
PLC-controlled operation	Provides reliable performance, easy integration, and quick parameter changes
Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	Regulatory-compliant and audit-friendly

Technical specifications

Infeed bottle speed		200 bottles / min	
Shipper throughput		2 – 10 shippers / min (depending on bottle matrix)	
Inspection area (FOV)	Bottom inspection		300 mm × 400 mm
	Print and apply		100 mm × 150 mm
Product size	Bottle diameter × height	Minimum	30 mm × 53 mm
		Maximum	125 mm × 185 mm
Shipper dimensions	Minimum	Length	163 mm
		Width	123 mm
		Height	95 mm
	Maximum	Length	577 mm
		Width	440 mm
		Height	185 mm
Robotic arm		360° motion	
Regulatory compliance		Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	

VeriShield® BA31

BOTTLE AGGREGATION SYSTEM

VeriShield® BA31 is an intermediate packaging aggregation unit with bottom collation functionality for aggregating bottles or cartons equipped with a camera-based aggregation functionality.

It performs label printing for aggregated units and verifies printed barcodes using a handheld scanner with an operator-friendly interface. It is also suitable for shrink wrap bundles of plastic or PET bottles with the bottom reference code and shrink wrapped carton bundles.

Applications
Batch coding, verification and aggregation of bottles



Features	Benefits
Multiple 2D barcode decoding for aggregating bundle / case / shipper box	Easy aggregation process for bundle packaging Suitable for shrink-wrapped bundles as well
Operator-friendly human-machine interface	Simplifies system setup, monitoring, and maintenance
Plug-and-play integration capability with a multi-functional, modular design	Enables seamless connection with existing packaging lines
Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11	Regulatory-compliant and audit-friendly

Technical specifications

Machine dimensions	Length	910 mm
	Width	913 mm
	Height	1669 mm
Maximum speed		8 labels / min (with two operators)
Inspection area (FOV)		400 mm × 300 mm
User / role management		Centralised VeriShield® server authentication
Regulatory compliance		Compliant with EudraLex Volume 4: Annex 11 and 21 CFR Part 11
Reporting		Batch-wise production reports Audit trail reports

Introducing ACG traceability software.

Structured oversight at the plant level.

Our plant management suite for track & trace centralises serialisation and aggregation data within a secure, controlled plant environment. It integrates with third-party enterprise resource planning (ERP) and supply chain management systems to unify packaging data into a single shared repository.

With real-time visibility across lines, you can maintain tighter operational control and make more informed decisions – improving efficiency without adding complexity.



VeriShield® SM300

PLANT MANAGEMENT SUITE

VeriShield® SM300 is a plant management suite for track & trace that ensures data security and integrity. It is a centralised server system application comprising multiple modules including global regulations, serial number management, data management, user report functionality, and horizontal and vertical integration modules.

Applications

Serial number management, data management, user report functionality, and horizontal and vertical integration



Features	Benefits
Plant-level centralised server architecture	Ensures data security and controlled access within the site
Can be integrated with multiple third party and enterprise resource planning (ERP) solutions and supply chain management systems	Enables centralisation of the data repository for easy accessibility
Order-based production management support	Helps in resource planning and cost-tracking
Tracks progress of orders	Easy operation
Configurable serial number management capabilities	Automates the serial number management process ensuring accurate traceability
Virtual line management functionality for modular packaging	Real-time data tracking from the packaging line enables increased visibility, better decision making and ultimately overall improved efficiency
Standardised XML interface	Easy to operate with maximum flexibility

Technical specifications

Architecture	Plant level server architecture Central or distributed site server architecture
Level supported	Full stack serialisation solution L3: site server L4: enterprise integration L5: external system / government repository integration
User authentication	Centralised user and role management through server authentication Audit trail and access control support
Data exchange	Data upload and exchange with external repositories ERP and enterprise system integration supported

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At ACG, we understand that when you get a new platform, you're buying far more than the technology; you're also investing in a relationship that will last its lifetime.

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Whether you need advice or training, are preparing to make your factories 'smarter', or simply need quick troubleshooting, know that ACG will always go above and beyond to offer excellent service and value. As far as we're concerned, we're in this together – for life.



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