

Off Line Flat Carton Print Verification System

CSPL 1850
PRINT & VERIFY



Specific requirements for Global Serialisation as per GS1 in the Pharmaceutical Industry, require a Variable Data Printing solution. CSPL culture has been shown in our solutions, built with the standards of GMP. Data security is our prime focus, where we follow the guidelines of 21 CFR Part 11 and Barcode Reading Tools follow the ISO Standards of 15415 & 15416.

CSPL 1850 PV "Print & Verification System" is fast and reliable system for flat carton to fulfil all international requirements for serialization of track and trace. Not only a compact modular but also combines all necessary functions in a small footprint and seamlessly integrates into a new or existing production environment. Also a comprehensive system solution that gives you the flexibility to adapt necessary work flow.

Highlighting feature - it can handle normal as well as lock bottom flat cartons. The system is designed for offline operation but data can be transmitted on the fly hence parallel activity for further operation of carton filling and packing can be carried out without time loss.

Powerful front-end (GUI) software gives access control for Operator, Supervisor, Manager and Admin level to ensure the security and functionality.

Edge over advantages are eye opening to think beyond with key benefits like, CSPL 1850 PV is the only system that bring the benefits like rejection marking, Invisible marking.

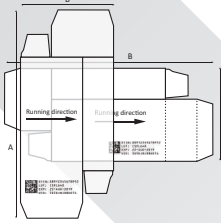
Technical Specification

Compliance to	: CE directives. 21 CFR part 11	Electrical connection	: Voltage: 230 VAC (\pm 10%)
Conveyor unit dimensions	: Length 1900 mm Width 1210 mm Height 1680 \pm 50 mm	Frequency	: 50 / 60 Hz
Working height	: 800 mm \pm 50 mm	Product position	: Through sensor & encoder tracking
Weight	: 235 kg. (approx.)	Machine controller	: PLC
Belt speed	: 10-50 m/min	Input / Output	: 18 Input & 12 Output
Running direction	: Left to right	Printing System	
Cabinet	: Stainless steel / Aluminium with key locked space for controller and reject bin	Technology	: Print heads TIJ 2.5 technology
Top cover	: Transparent acrylic cover equipped with safeguard switch to stop the machine if opened during production	Print height	: 12.7-25.4 mm / ½"-1" / 1 or 2 pen
Reject bin	: Reject bin secured with key lock	Resolution	: Up to 600 dpi
Reject system	: Mechanical rejection mechanism, No air needed.	Print distance	: 0.5-5.0 mm dependent on ink and speed, typically 0.5-2.0 mm (nozzle to print surface)
Mountings	: Integrated mounting bracket for print head and camera positioning	Ink supply	: Aqueous or solvent based ink cartridges
Rejection mechanism	: Mechanical flapper with actuator	Print head features	: Switch for cartridge detection
Rejection marker	: TIJ 2.5 printer for rejection marking on rejected box	Vision System	
Emergency operation	: Switch on front panel. Hardware controlled emergency stop function	Camera & Lenses Resolution	: Camera - 1.3 megapixel and Lens - 1.3 megapixel with 8 mm focal length (varies on application demand)
Feeder		Inspection area	: 40 (H) x 60(W) mm (Depend on Selection of Camera and Lens)
Maximum product size	: 300 x 300 mm	Light	: Integrated light Shielding
Minimum product size	: 50 x 76 mm	Verification	: Verification of printed text, Image comparison, 1D & 2D codes EAN13, Code128, PHARMACODE, Data Matrix, QR Code, PDF 417, AZTEC, CODE 39 & many more...
Product thickness	: 80 gsm to 500 gsm	Grading	: Quality of 2D code is determined grade level between F and A (0-4). With a font-based reference scheme grade level between 0 and 100
Feeding speed motor	: 100 m/min : DC motor	Qualification	: In accordance with industrial standards, printed items ISO/IEC 15415 and 15416
Connection / Input & Output		Data matrix standard	: According to GS1 and ISO/IEC 16022
External connections	: Main power, Air pressure, Up-stream down-stream machine control signals, LAN	Text standard	: OCR-B font (possible to use other fonts)

Production

Print position : Print from top and print on the product moving direction

Carton size (min. - max.)
 50-297 mm (leading edge)
 76-297 mm (printed side)



Throughput : Up to 200 cartons per minute

Precise position : "Q" Management for Cartons

Display : 17" Touch monitor

Software : CSPL 1850 GUI to control all parameters and to comply 21 CFR Part 11

Interlocking

Queue control management for accepted carton & rejected carton. Up-stream/down-stream verification (Like cartonator and bundler). Errors & warning alarm log with time stamp for :

- Emergency stop
- Consecutive rejection
- No encoder pulse
- Product sensor block
- Accepted sensor block
- Printer low ink
- Drive failure
- Rejection failed
- Safety door open
- Queue missing
- Rejection bin sensor block

Report Output

Batch summary report, Batch detail report, Audit trail report, Alarm log report, Sample report

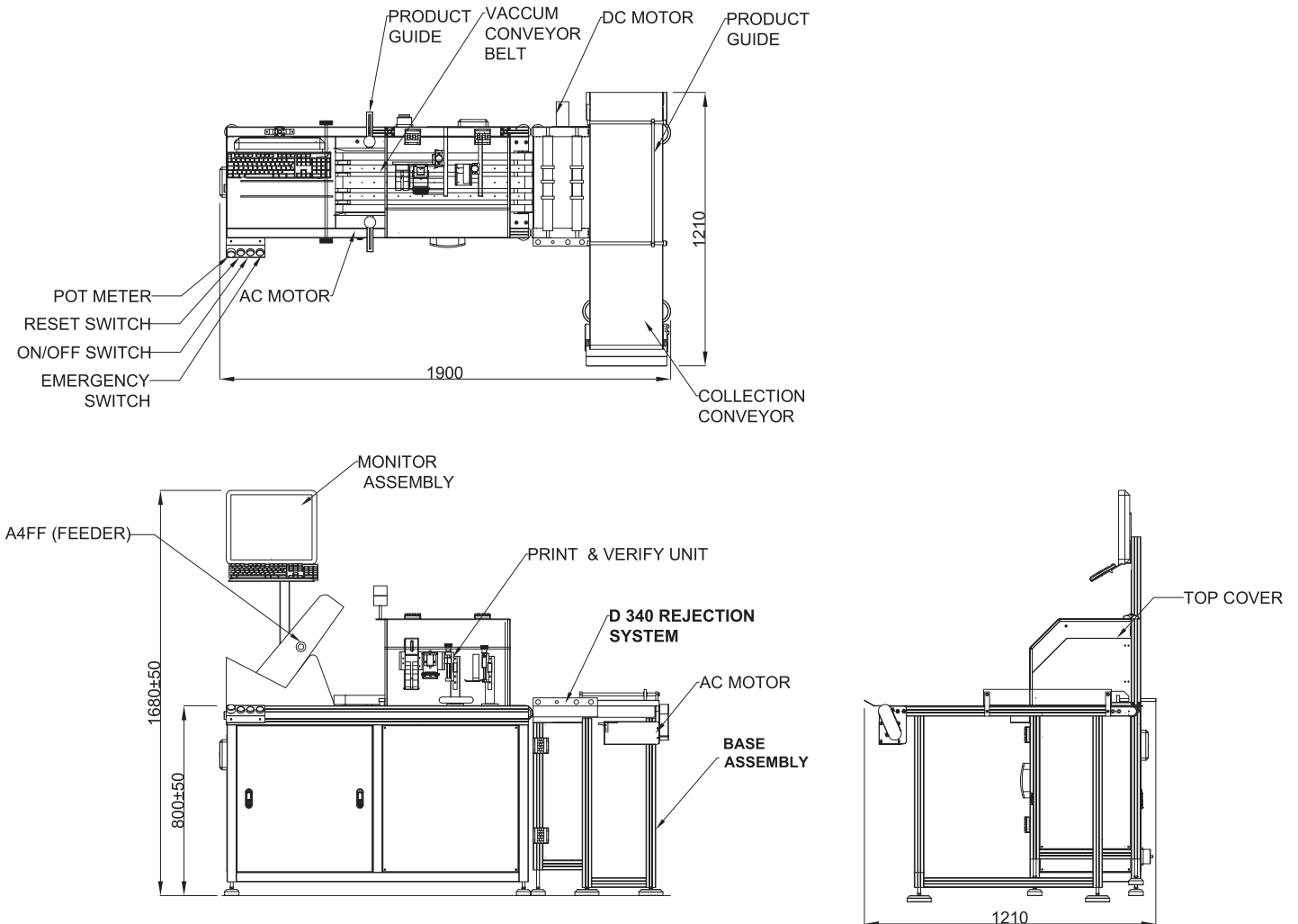
USP of the System

- Rejection marker
- Invisible printing

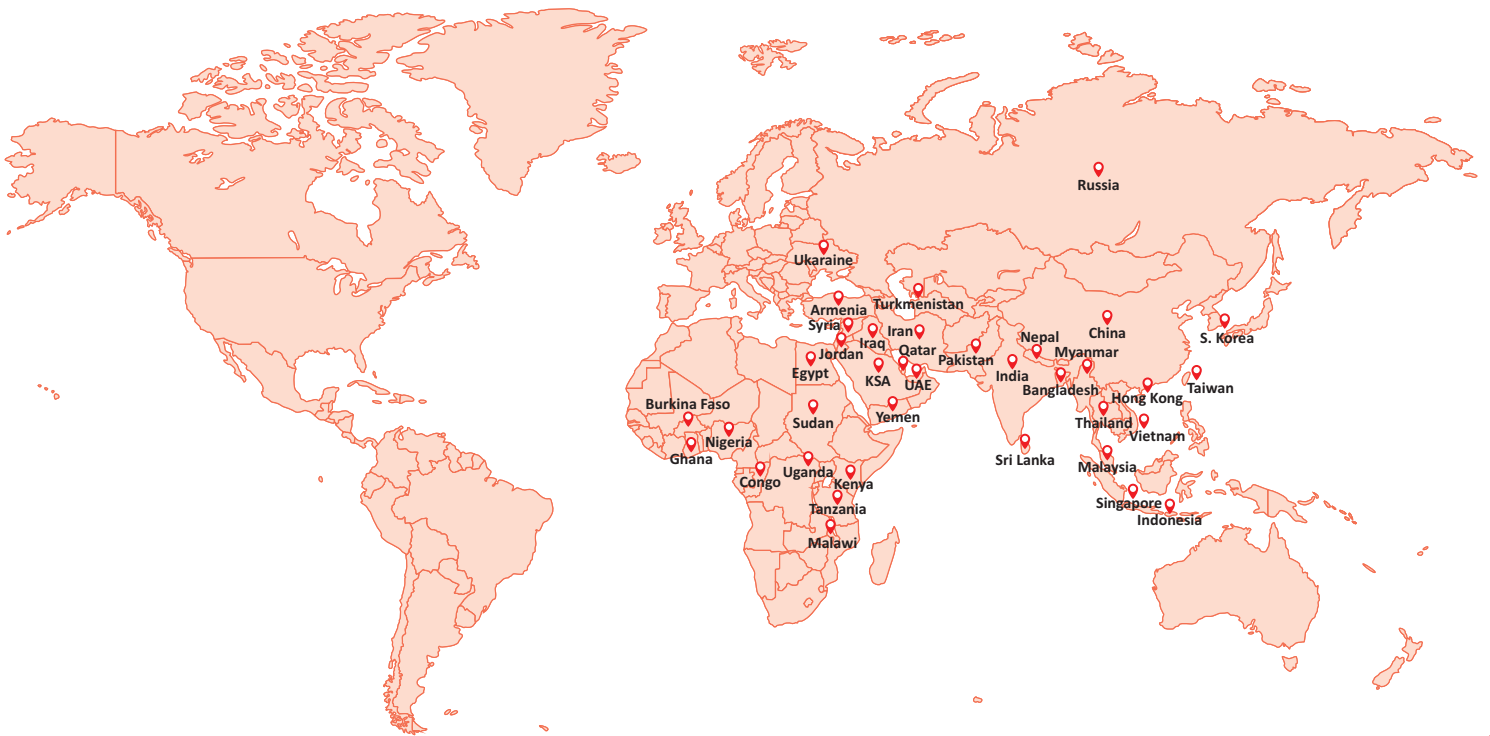
Convincing Highlights

- Solution design for lock bottom and flat cartons /cut labels
- Integrated collection conveyor for the smooth operation
- No compressed air required
- System support to all application identifier as per GS1 standard
- ISO standard verification of barcode
- In single pass, it can verify OCR, 1D, 2D, Pharmacode
- Elaborate and precise transport belt gives reproducible quality even at high speed up to 200 units/min
- Format change takes less than 5 minute
- Consecutive rejection control
- Q' management for every carton enter in the system
- All errors and warning log with time stamp for audit requirements
- EPCIS compatibility
- Exhaustive validation documentation as per GAMP5
- Industry accepted yet customer required design of report generation
- Multiple country compliance
- 21 CFR Part 11 compliance

GA Drawing



Global Presence



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