Print, Verify & Tamper Evident Label Applicator

GTIN:
LOT:
EXP:
UID:

Specific requirements for Global serialisation as per GS1 in the pharmaceutical industry require a variable data printing solutions. CSPL culture has been shown in our solutions, built with standards of GMP – Compliant design, data security is our prime focus and will follow 21 CFR Part 11 compliance and barcode reading tools follow ISO standard of 15415 & 15416.

CSPL 1900 "Print Verification & Tamper Evident System" is fast and reliable system to fulfil all international requirements for serialization and track & trace. The purpose of CSPL1900 is to comply with the EU Falsified Medicines Directive (FMD) guideline as per GS1 standards followed over 47 countries in EU. Modular construction combines all necessary functions in a small footprint and seamless integrates into new or existing production environment. Also a comprehensive system solution that gives you the flexibility to adapt necessary work flow.

Powerful front hand 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 1900, is the only system that brings the benefits like rejection marking, Invisible marking, 2 color prints which is very difficult to detours and achieve the goal to keep spurious products out of supply chain. The tamper proof sticker label applicator, printer, vision and rejection marking is mounted in same machine. Optional selection while selecting machine to have Bollini label applicator as well in same system. The interlocking system allows operator with facility to find the reason for rejection, it can be due to printer or Label applicator. Demand beyond limit is key for optional expansions like instead of UV Ultra sonic sensors, we can use Vision Camera for Tamper Proof Sticker Label applicator and for Bollini label as well.

Technical Specification

Compliance to	:	CE directives. 21 CFR part 11
Machine dimension	:	Length 1735, Width 1285 Height 2006 mm (180 $\pm$ 50)
Working height	:	720 mm (180 $\pm$ 50)
Weight	:	400 kg. (approx.)
Belt Speed	:	35 m/min ($\pm$5)
Running direction	:	Left to right
Cabinet	:	Stainless steel with key locked space for controller
Top cover	:	Transparent acrylic cover equipped with safeguard switch to stop the machine if opened during production
Rejection bin	:	Acrylic rejection bin secured with key lock
Rejection system	:	Air pressure box blow-out for boxes up to 250 g. Pneumatic push out device available for >250 g products

Infeed carton separator :

Top belt	:	AC synchronize motor
Carton size	:	Minimum size - 20(W) X15(H) X 60(L) Maximum size - 300(W) X100(H) X 210(L)

Connection / Input & Output

Electrical connection	:	Voltage: 230 VAC (+ 10%) Frequency : 50 / 60 Hz
Air pressure	:	5 to 7 Bar main supply
Machine controller	:	PLC 36 Input & 24 Output

Printing System

Technology	:	Print heads TIJ 2.5 technology
Print height	:	12.7-25.4 mm / ½"-1" / 1 or 2 pens
Resolution	:	Up to 600 dpi
Print distance	:	0.5-2.0 mm dependent on ink and speed,
Ink supply	:	Ink cartridges, water and solvent based inks
Capability	:	Static text, Variable text, Static barcode, Variable barcode, GS1 data matrix Barcode, Counter, Date & time, Shift code, Static logo, Variable logo, 2 color printing, Invisible printing

Vision System

Camera & Lenses	:	Camera - 1.3 megapixel and Lens - 2 megapixel with 8 mm focal length (varies on application demand)
Inspection area	:	80 (H) x 110(W) mm (Depend on selection of camera and lens)
Light	:	Integrated light shielding
Verification	:	Verification of printed text (OCR), Image Comparison, 1D & 2D codes, EAN13, Code128, PHARMACODE, Data Matrix, QR Code, PDF 417, AZTEC, CODE 39 & many more...
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 to 100
Qualification	:	In accordance with industrial standards printed items ISO/IEC 15415 and 15416
Data matrix standard	:	According to GS1 and ISO/IEC 16022
Text standard	:	Recommended OCR-B font
Print position	:	Front / Rear side
Throughput	:	Up to 250 cartons per minute
Display	:	17" Touch monitor
Software	:	CSPL 1900 GUI to control all parameters and to comply with 21 CFR Part 11

Label Applicator

Label material	:	Paper/Film
Release paper	:	Glassine Paper/Film
Label gap	:	3 mm
Label roll Dia.	:	Max. - OD 280 mm and ID 76 mm
Label height	:	Max. - 100 mm
Label height setting	:	Labeler suitable for label roll from 25 mm to 100 mm in height
Labeling head adjustment	:	150 mm adjustment each on both axis. horizontal and vertical
Speed	:	250 Labels/min
Labeling head	:	2 No's
Bollini labeling Head	:	Optional, machine dimension will change

Interlocking

Queue control management for accepted label & rejected label. Errors & warning alarm log with time stamp for :
- Emergency stop
- Consecutive rejection
- Air pressure low alarm
- Rejection confirmation system
- Jamming sensor
- Safety door inter locking
- Missing label in roll detection
- Label roll ending alarm
- Missing label in show box detection

Report Output

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

Safety Feature

- All the electrical wiring have covered
- All moving parts of equipment/system have covered with guards
- All components have proper earthing

Password Policy

A. Password-protected individual user accounts
B. Password and group user ID policy (minimum length)
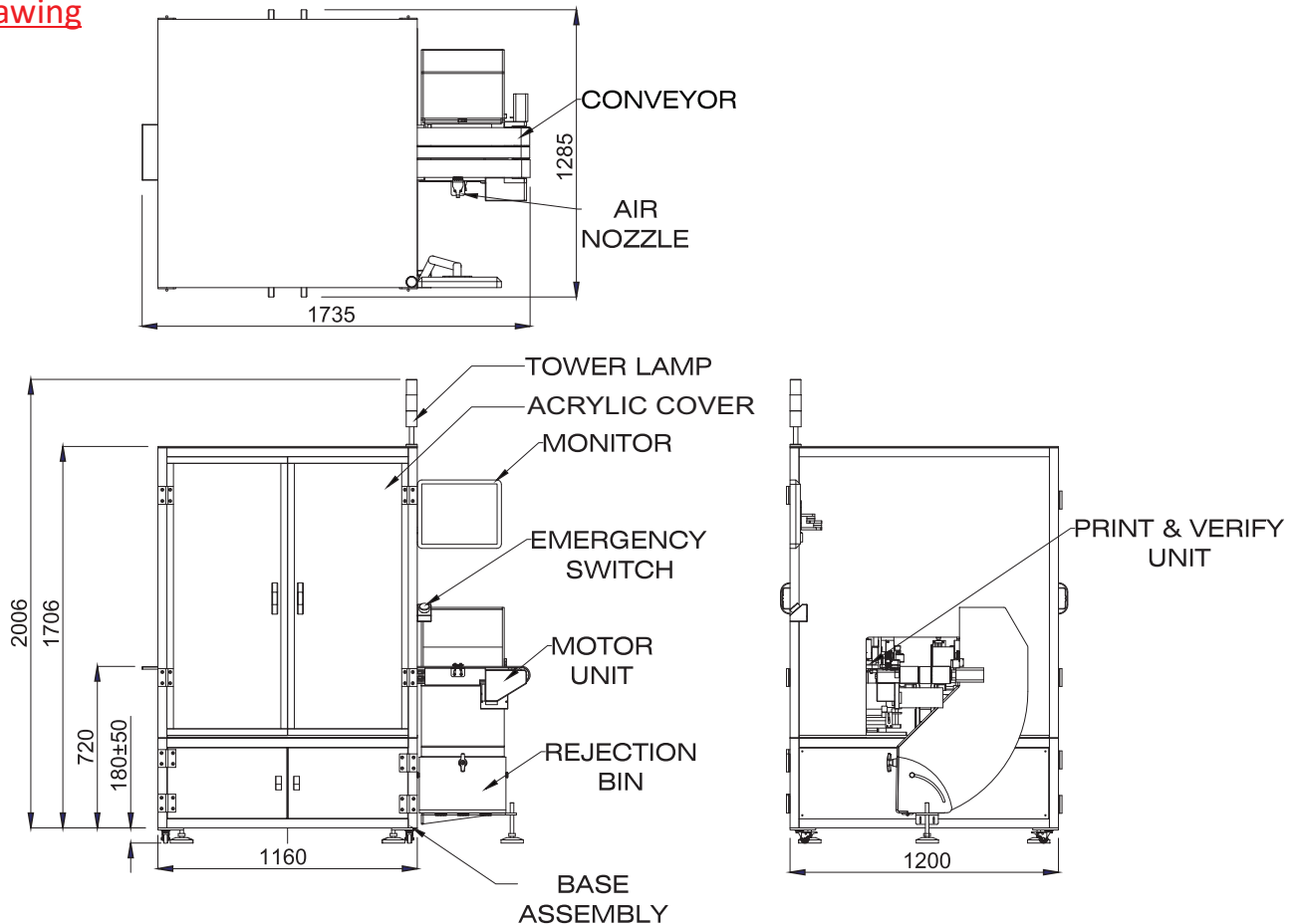C. System will ask to change the password to user periodically

USP of the System

- Multiple verification on single FOV i.e. OCR, 2D, PHARMA CODE, EAN13, Image Verification…..
- Rejection marker

- 2 Color printing
- Invisible printing
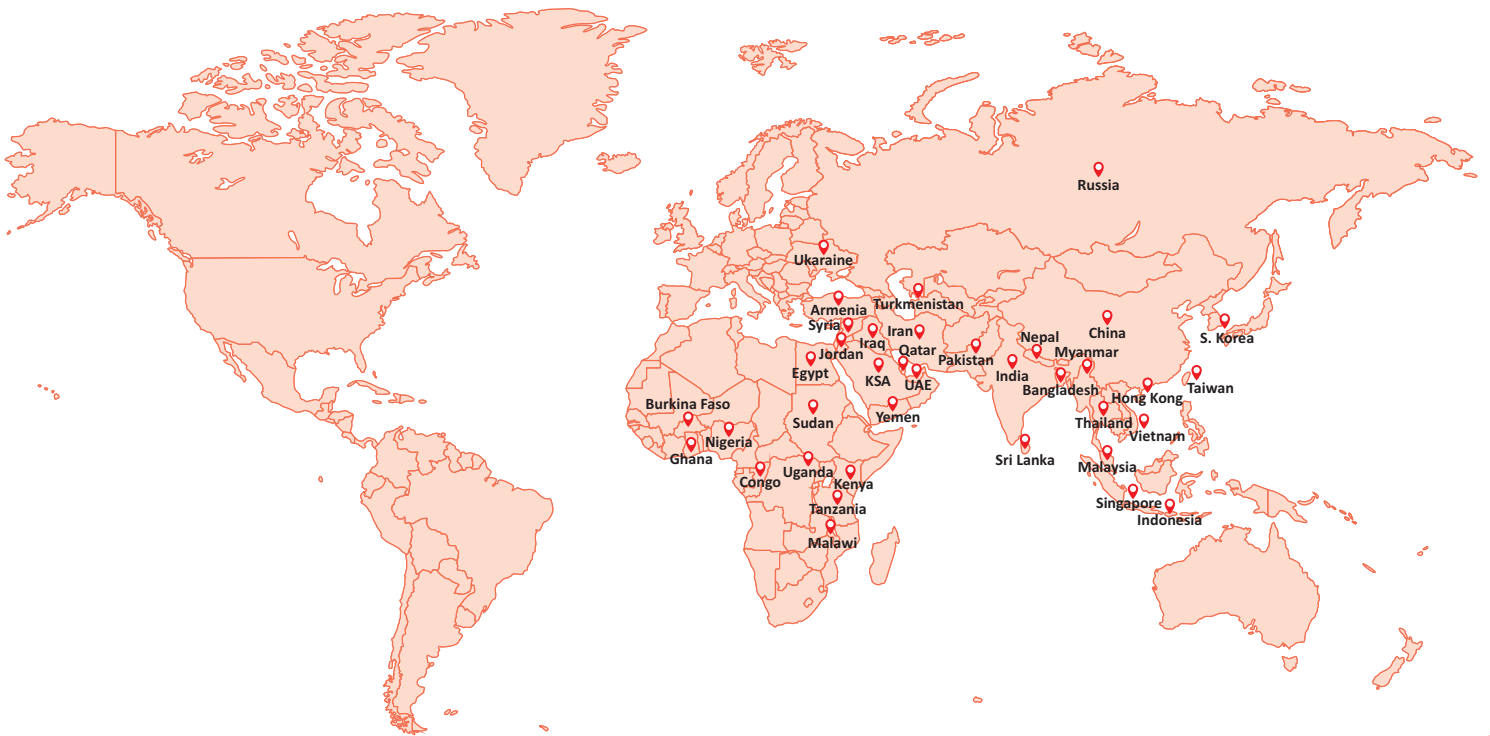- Label presence absent verification

Convincing Highlights

- Single camera can read label for pharma code, EAN13, 2D bar code, OCR, Image comparison
- Rejection marking
- Missing label in roll detection
- System support to all application identifier as per GS1 standard
- ISO standard verification of barcode
- Format change takes less than 5 minute
- Consecutive rejection control
- Queue 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
- Construction SS304
- Production: up to 150 units per minute in small boxes
- Special system for label detection after label applied on carton
- Product : medical boxes
- Label: two security
- Synchronized machine

GA Drawing

Global Presence