CONDOT®
SYSTEMS PVT. LTD.

Print Verification and Rejection Mechanism on Label Applicators

CSPL 500

CSPL 500

PRINT & VERIFY

GTIN: 08...
LOT: CSP...
EXP: 22-...
UID: 56...

GTIN: 08912345678912
LOT: CSPL648
EXP: 22-AUG-2019
UID: 5650JNJDBUA14
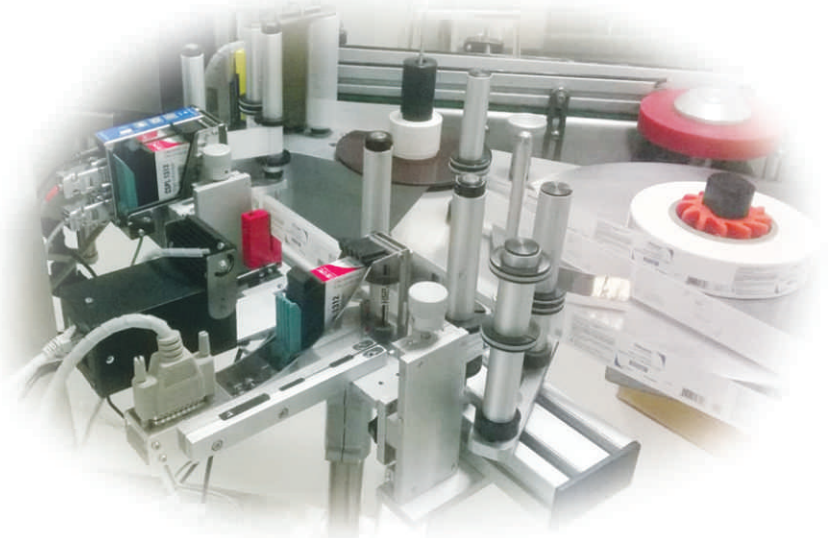
Specific requirements for Global Serialisation as per GS1 in the Pharmaceutical Industry, require a Variable Data Printing solution. CSPL culture has been shown in our solutions, built with the standards of GMP. Data security is our prime focus, where we follow the guidelines of 21 CFR Part 11 and Barcode Reading Tools follow the ISO Standards of 15415 & 15416.

CSPL 500 PV "Print & Verification System" is a fast and reliable system to fulfil all international requirements for serialization of track and trace. Modular construction 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.

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 500, is the only system that brings the benefits like rejection marking, Invisible marking, 2 colour prints which is very difficult to detour and also achieve the goal of keeping spurious out of supply chain. The printer, vision and rejection marker is mounted on the labelling machine which does not have rejection mechanism, still system function seamless since rejection can be taken care in next station as bottle is marked with rejection. It generates the required I/O signal if the label applicator to reject the bottles also or the system can make customised rejection system on labelling machine as a retrofit hence it gives flexibility to adopt in any circumstances on any kind of production line.

Technical Specification

Compliance to	:	CE directives. 21 CFR part 11
Mounting space required on labeling	:	Length 525 mm Width 700 mm Height 1780 mm
Weight	:	55 kg. (approx.)
Labeling machine speed	:	5-50 m/min
Running direction	:	Left to right OR right to left
Cabinet	:	Stainless steel with key locked space for controller
Reject bin	:	Stainless steel rejection bin secured with key lock (Optional)
Reject system	:	Air pressure blow-out for bottle up to 250 g. Pneumatic push out device available for >250 g. products
Mountings	:	Integrated mounting bracket for printhead, Camera positioning and rejection marker
Rejection marker	:	TIJ 2.5 printer for rejection marking on rejected label
Emergency operation	:	Switch on front panel. Hardware controlled emergency stop function

Connection / Input & Output

External connections	:	Main power, Compressed Air, LAN
Electrical connection	:	Voltage: 230 VAC ($\pm$ 10%)
Frequency	:	50 / 60 Hz
Air pressure	:	5 to 7 Bar main supply
Product position	:	Through sensor & encoder tracking
Machine controller	:	PLC

Input / Output	:	12 Input & 08 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	:	0.5-5.0 mm dependent on ink and speed, typically 0.5-2.0 mm (nozzle to print surface)
Ink supply	:	Aqueous or solvent based ink cartridges
Print head features	:	Switch for cartridge detection

Vision System

Camera & lenses resolution	:	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, 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 and 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	:	OCR-B font (possible to use other fonts)

Production

Print position : From side

Throughput : Up to 300 labels per minute

Precise position : "Q" Management for bottle tracking & rejection

Display : 17" Touch monitor

Software : CSPL 500 GUI to control all parameters and to comply with 21 CFR Part 11

Interlocking

- Queue control management for accepted label & rejected label

- Errors & warning alarm log with time stamp for
  - Emergency stop
  - Consecutive rejection

Report Output

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

USP of the System

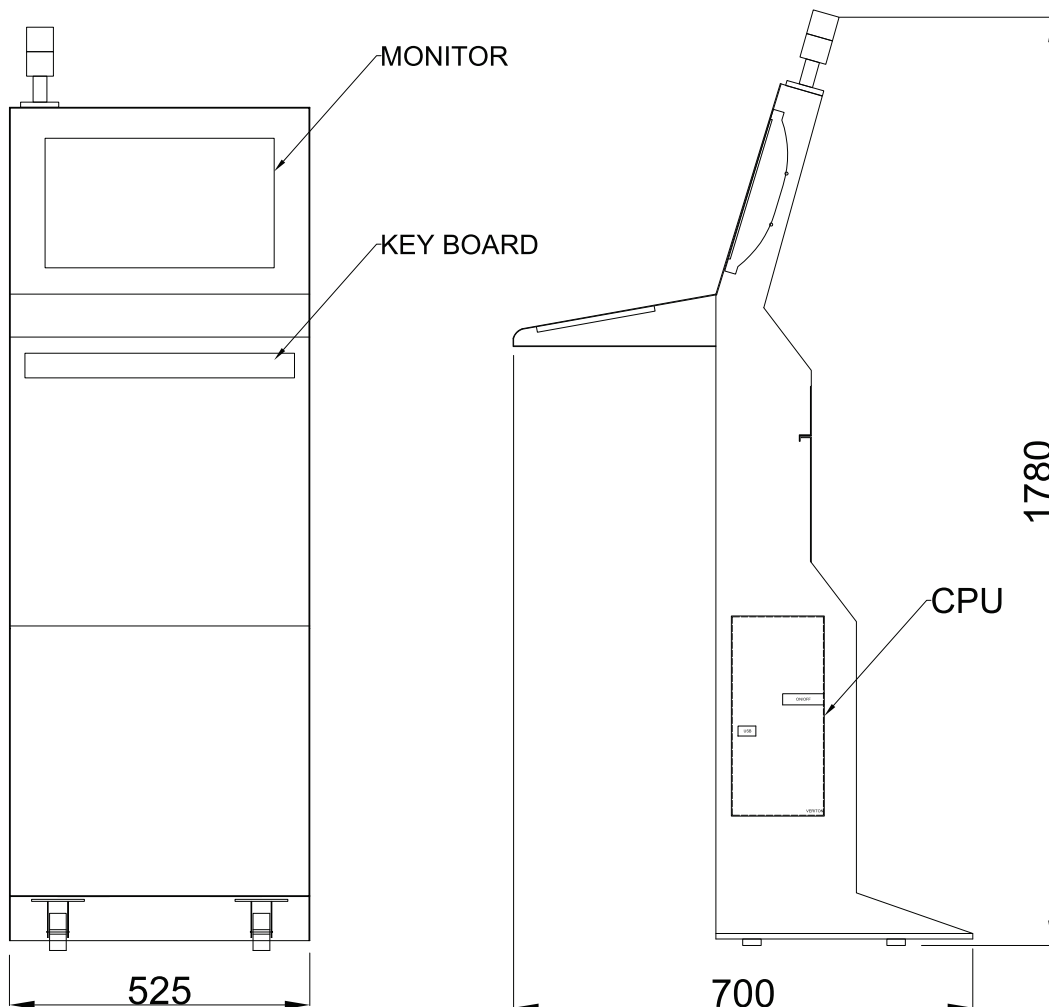- Multiple verification on single FOV i.e. OCR, 2D, PHARMA CODE, EAN13, Image Verification…..

- 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
- No label 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
- 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

MONITOR

KEY BOARD

1780

CPU

525

700

Global Presence