

# Compact Print Verification System

CSPL 600



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.

CSPL 600 "Print & Verification System" is a fast and reliable system to fulfil all requirements for global serialization and track & 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.

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

## Technical Specification

<b>Compliance to</b>	: CE directives. 21 CFR part 11
<b>Machine dimensions</b>	: Length 710 mm Width 500 mm $\pm$ 30 mm Height 1625 mm (100 $\pm$ 50)
<b>Working height</b>	: 780 mm (100 $\pm$ 50)
<b>Weight</b>	: 45 kg (approx.)
<b>Belt speed</b>	: 5-30 m/min
<b>Running direction</b>	: Left to right
<b>Cabinet</b>	: Stainless steel with key locked space for Controller and reject bin
<b>Rejection bin</b>	: Stainless steel reject bin secured with key lock
<b>Rejection system</b>	: Air pressure box blow-out for boxes up to 250 g.
<b>Mountings</b>	: Integrated mounting bracket for print head and camera positioning
<b>Emergency operation</b>	: Switch on front panel. Hardware controlled emergency stop function

### Connection / Input & Output

<b>External connections</b>	: Main power, air pressure & LAN
<b>Electrical connection</b>	: Voltage: 230 VAC (+ 10%)
<b>Frequency</b>	: 50 / 60 Hz
<b>Air pressure</b>	: 5 to 7 bar main supply
<b>Product position:</b>	Through Sensor & Encoder tracking
<b>Machine controller</b>	: PLC
<b>Input / Output</b>	: 8 Input & 6 Output

### Printing System

<b>Technology</b>	: Print heads TIJ 2.5 technology
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<b>Print height</b>	: 12.7-25.4 mm / ½"-1" / 1 or 2 pens
<b>Resolution</b>	: Up to 600 dpi
<b>Print distance</b>	: 0.5-5.0 mm dependent on ink and speed, typically 0.5-2.0 mm (nozzle to print surface)
<b>Ink supply</b>	: Ink cartridges, water and solvent based inks

### Vision System

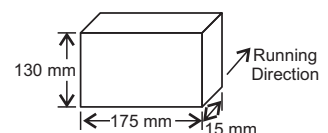
<b>Camera &amp; lenses resolution</b>	: Camera - 1.3 megapixel and Lens - 1.5 megapixel with 8 mm focal length
<b>Inspection area</b>	: 40 (H) x 60 (W) mm
<b>Light</b>	: Integrated light Shielding
<b>Verification</b>	: Verification of printed text, Image Comparison & 2D codes
<b>Grading</b>	: Quality 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
<b>Text standard</b>	: OCR-B font more than 6 Pt.

### Production

<b>Print position</b>	: Print from either front, back
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#### Carton size (min. - max.)

- A: 20-130 mm (leading edge)
- B: 18-130 mm (height)
- C: 50-130 mm (printed side)



<b>Throughput</b>	: Up to 120 cartons per minute. (Depend on carton Size)
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<b>Precise position</b>	: "Q" Management for Cartons
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<b>Display</b>	: 14"+ Monitor
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<b>Software</b>	: CSPL 600 GUI to control all parameters and to comply 21 CFR Part 11
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### Interlocking

Queue control management for accepted carton & Rejection carton. Errors & warning alarm log with time stamp for

- Emergency stop
- Consecutive rejection
- No encoder pulse
- Product sensor block
- Queue missing
- Accepted sensor block
- Low air pressure (optional)

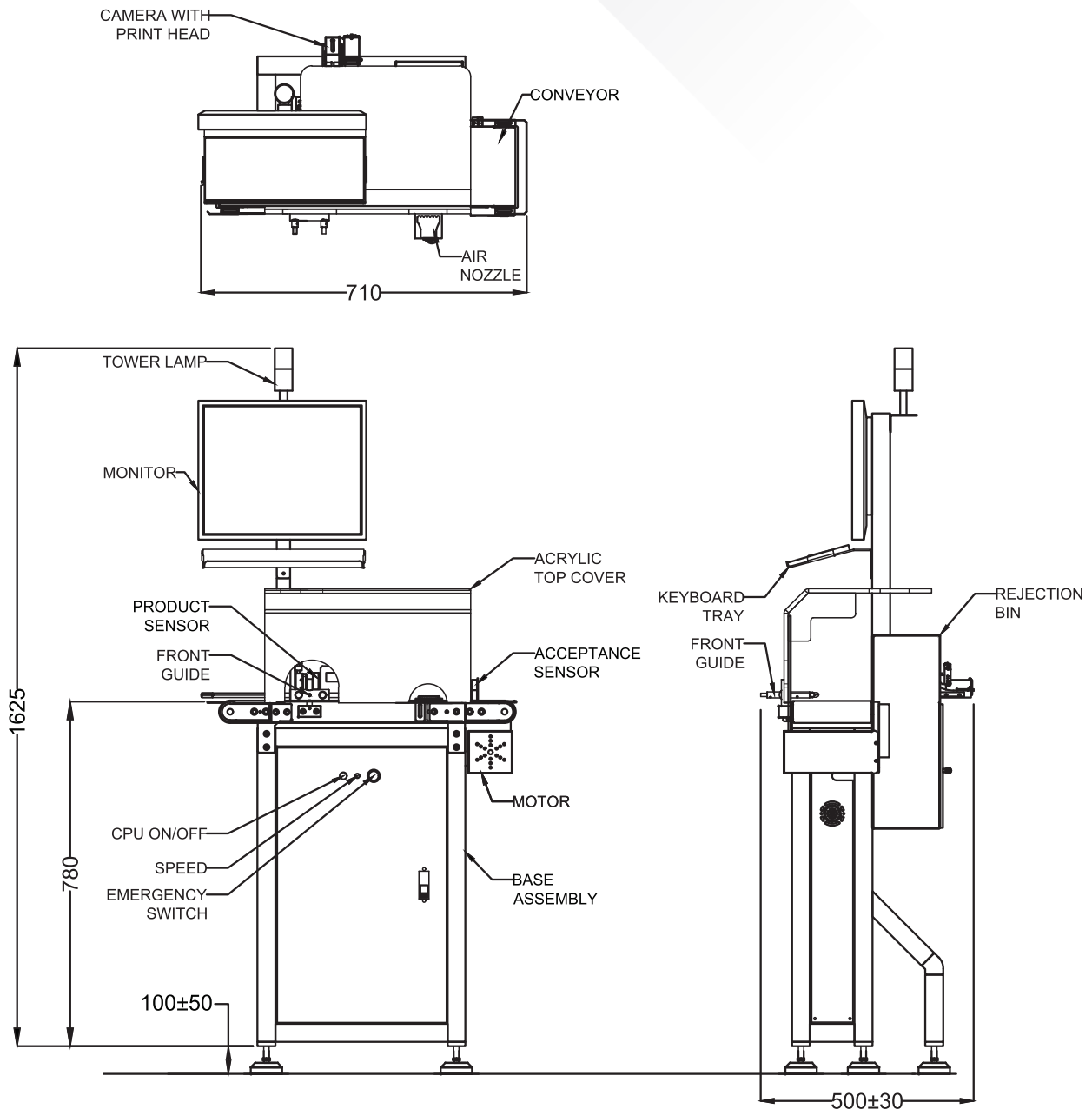
### Report Output

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

### Convincing Highlights

- Most Compact machine and it occupy smallest floor space
- System support to All application identifier as per GS1 standard
- In single pass, it can verify OCR, BCR - 2D as per GS1 needs
- Elaborate and precise transport belt gives reproducible quality even at high speed up to 150 units/min
- Format change takes less than 5 minute
- Assurance, no rejected carton can go further in production line
- Consecutive rejection control
- Joint carton identification and rejection control
- Queue management for every carton enter in the system
- All errors and warning log with time stamp for audit requirements
- Industry accepted, yet customer required design of report generation
- 21 CFR Part 11 compliance

### GA Drawing



## Global Presence



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