

Print, Apply and Inspect Solution for leading chemical manufacturer including a Print Management System.

One of our customers, an Irish company that has been dedicated to the supply of crop protection products for over 30 years, required an updated solution for an existing line to comply with French labelling guidelines and needed to come up with a solution to suit different shaped canisters.

The Challenge

With this new customer demand, they were required to print a 2D GS1 data matrix code with human readable fields on each canister but had no space available on existing labels. As they had 6 different types and shapes of containers, there was no obvious uniform solution. This meant that in the event of a breakdown, products could be swapped to another line to avoid excessive downtime.

They attempted to use existing hardware (an inkjet solution), however the code wasn't readable as it suffered distortion with the inkjet system. After a meeting with our customer and a detailed engineering review, a solution was found – to put a new label on the cap of each product. A vision inspection system was also required to verify that the label was present and the information was correct, as a fine was imposed if information was missing.

The Solution

The solution was to incorporate a <u>Cab Hermes + print and apply applicator</u> to (blow) apply a circular 2D barcode label to the cap of each canister (around 30 products per minute). This is then passed through a <u>Datalogic Matrix 210</u> and <u>VB5</u> to automatically detect if the label is present. If the label is missing an alarm sounds.



Cab Hermes + system applying label. Checked by Matrix 210 and VB5.



Example of 2D barcode label



Case Study

The Results

- Cost saving no fines imposed for missing labels.
- Automatic detection system eliminates human error and saves time.
- Seamless integration into existing line.
- By fulfilling customer obligations, this led to an increase in customer satisfaction.
- User-friendly.

Print Management System

In addition to the print, apply and inspect solution we were also asked to spec, design and install a bespoke **print management system** which operates as follows:

- In their ERP system, they produce a CSV file with the details of all released batches. Batches are typically for around 800 units. The operator is given a job sheet for each batch. This has two barcodes printed on it. He/she will scan these two barcodes into our Print and Apply system. It then searches the CSV file for the appropriate batch, loads up all the data fields and gets the next sequence number.
- It supports up to 4 printers:
 - An inkjet printer that sprays the Batch No, Date of Manufacture (DoM), Size and Sequence Number onto the side of the container.
 - \circ $\,$ Another that prints a barcode onto a pre-printed label which gets applied to the container.
 - Cab applicator that prints and applies a circular label onto the lid of the container (GTIN, Batch No, DoM in both Human readable and as a 2D barcode)
 - Cab applicator that prints and applies a carton label on the outer carton (GTIN, Batch No, DoM, Carton Qty).

The system communicates over the network to each printer (i.e. over TCP/IP).

Benefits of the Print Management System:

- No manual entry of data directly onto printers which significantly reduces errors and turnaround time.
- Much easier/faster for the operators to change batches.
- Easier for management / IT to monitor progress.
- Elimination of errors after changeover (all printers are cleared when Stop Batch is pressed).



Case Study

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Barcodes are scanned from job sheet into AIS bespoke software system.



System then searches CSV file for appropriate batch, loads up all data fields and gets the next sequence number.

About AIS

AIS supply, install and maintain **Automatic labelling**, **Machine Vision**, **Barcode** scanning/verification and label printers to a number of industries including life sciences, food and beverage, manufacturing and logistics, throughout Ireland and abroad. Established in 1998, we are a 100% Irish owned company with divisions in Spain and the Netherlands.