

— EST 1978 —

LABELS & LABELING

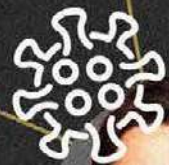
THE WORLD OF PACKAGE PRINTING

- + In praise of label industry's essential workers
- + Adapting to a 'new normal'
- + e-Commerce boom
- + US converters emerge as helpers

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Inspecting variable data

The current pandemic has thrust even more pressure on printing accurate labels first time and eliminating waste. Tony White reports



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Omron launches new MicroHawk smart camera range

Industrial automation specialist Omron Automation Americas has launched the V/F400 and V/F300 Series smart cameras, the latest additions to its MicroHawk line that combines code reading and vision inspection capabilities into a single device.

Omron designed the new products especially for manufacturers who are looking to simplify their product inspections. The new MicroHawk V/F400 and V/F300 Series smart cameras are powerful devices that combine code reading and vision inspection into a single, highly compact form.

By bundling multiple capabilities in one, the new cameras will lower hardware costs and minimize the work required for commissioning and maintenance. Powerful technologies such as liquid lens autofocus, and a high-resolution 5-megapixel color camera ensure precision while promoting greater flexibility in production line layouts.

The autofocus technology ensures that the camera can reliably inspect products that vary in size, shape, or desired inspection type. Additionally, Omron's advanced X-Mode algorithms can read any code on any surface, including curved, shiny or otherwise textured materials, minimizing downtime and keeping production moving smoothly.

The compact size of the V/F400 and V/F300 Series makes it easy to embed them within space-constrained equipment and offers wide variety of supported communication interfaces include Ethernet/IP and Profinet for added flexibility.

Producing a high quality label effectively and efficiently has always been and always will be the ultimate aim of any label converter. Getting it right first time and eliminating waste is the main principle that should determine their working practices.

Over recent years JIT workflows have been at the forefront of the way in which production and deliveries are planned. However, the current pandemic has thrust even more pressure on getting labels to the product manufacturer, especially in the food and pharmaceutical sectors which have seen vast increases in volumes in order to support the supply chain of products to the supermarket sector in particular.

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Figures from a recent Finat survey of members show that there was an increase of almost 7 percent in the demand for labels in the first quarter of this year compared with 2019. The current and future quarter results are forecast to be severely impacted by the Covid-19 outbreak and subsequent lockdowns in countries around Europe since March.

This short term demand for critical supplies to the food, pharmaceutical and medical markets has increased considerably and been caused by the start of a stockpiling philosophy in anticipation of prolonged lockdown periods and consumer hoarding.

In view of this uncharacteristic behavior, it should be no surprise that lead times for self-adhesive materials, especially for non-critical goods, have increased substantially. Apart from the availability of raw materials (not only self-adhesive materials but also critical chemicals for the manufacture of consumables such as inks, adhesives and silicones), label converters

are facing the impact of lockdowns through the reduced availability of staff on the shop floor. This has meant adjustments to working practices necessary to comply with tightened operational safety and health measures (OSHA), and cashflow issues related to unilateral extension of payment terms by customers. (compiled from the Finat Q1 report on the state of the European label industry).

All of this means that it is vital that converters, whilst working to ever shorter delivery times, are confident that their output is right first time and waste is kept to an absolute minimum.

Web inspection

In the past we have discussed web inspection from the point of view of the finished, printed label. In this article we discuss the verification of the added variable data which can be so important to the end user, especially in the food, pharmaceutical, security and anti-counterfeit sectors where incorrect or missing information data can be vital to the end user or consumer. Whilst many label converters use a narrow web, single width roll to print labels, to maintain production levels in these times of high demand and to meet the requirement to print several SKUs simultaneously, converters are using multi-lane production methods. This makes the task of inspecting several tracks of labels with different images very demanding, especially when variable data is involved.

For variable data labels it is important to inspect every label and code and verify that it is correct against the original data file. It is also important to ensure that the quality and security features are accurate. Lake Image Systems recently introduced its Discovery Label Integrity Manager (LIM) which consists of an automated inspection system for verifying variable data which is printed on high-speed, multi-lane label presses. The LIM automates the finishing of the individual rolls whilst building in integrity, control, reporting and management to high levels of reliability.

Automating the inspection of the variable data components of a label printed using multi-lane technology when compared to single web production brings several significant benefits to the converter. This has been proved in practice at least two sites, one a major European security printer and the other a global security printer. The

GrafiSoft to represent Rotocontrol in Chile and Ecuador

Rotocontrol has appointed GrafiSoft as its local distributor in Chile and Ecuador for its range of high-speed label and digital hybrid finishing machines.

GrafiSoft's managing director and president Francisco Fernández along with business development director Francisco Javier Fernández and technical support specialist Pablo Despiau Burgos will play a vital role in supporting this region alongside Francisco Soto, director of sales Latin America for Rotocontrol.

Established in 2000, GrafiSoft brings 20 years' experience and strong presence in the region and is backed by a well-established service team. GrafiSoft specializes in integrated technology that increase productivity, improve quality and reduce costs by automating processes,

representing AVT, Domino, Esko, and X-Rite among others in its portfolio.

'GrafiSoft's strong print knowledge and established industry presence with label printers, supported by an experienced local service team will serve the Rotocontrol brand well in Chile and Ecuador,' said Soto. 'Rotocontrol's broad range of label finishing solutions are an ideal offering for their diverse market needs, from low-cost to highly modular machines for roll to roll label inspection/slitting, booklets, in-mold labels, die-cutting, and digital label finishing and embellishments.'

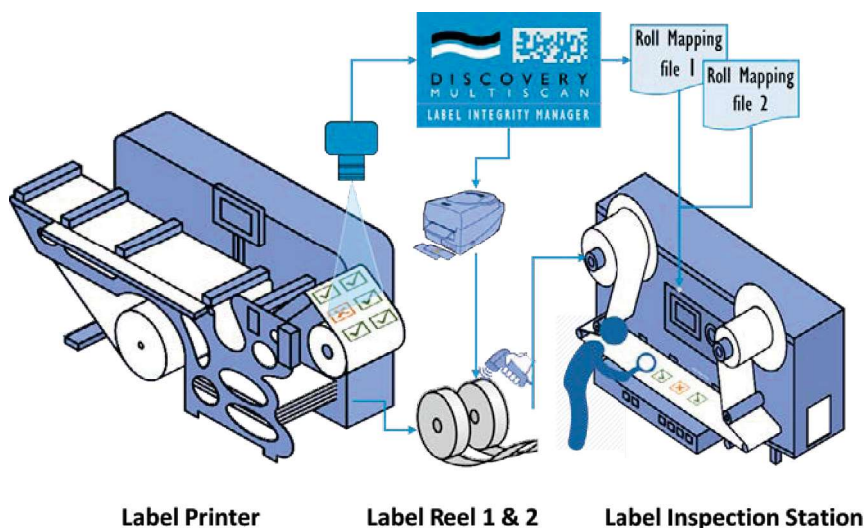
GrafiSoft is headquartered in Chile and has a local office in Ecuador.

Seb.Wolf installs Rotocontrol Ecoline

German label converter Seb.Wolf has ordered another Rotocontrol Ecoline

inspection slitter rewinder for its premium wine label finishing. Based in Eltville, near the Rhine and world-class wine producers, the company produces high-quality wine, sparkling wine and spirit labels. 'The new Rotocontrol Ecoline RSI will greatly contribute to the final finishing step of our labels,' said Nicoletta Compagni, managing director of Seb.Wolf. 'We were particularly impressed by the user-friendly design in combination with components for inspection. The slitting and rewinding from the RSI will also ensure that customers receive the maximum quality they are used to from Seb.Wolf.'

The Ecoline RSI sold to the internationally operating label specialist features roll-to-roll label inspection, slitting and rewinding in a 340mm web width for its premium label finishing.



Lake Image Systems recently introduced its Discovery Label Integrity Manager (LIM)

challenge was to ensure that the integrity of every reel was intact and the whole process to be automated. Benefits include increased label production rates – an increase of around 20 percent at the two sites.

Slitting the parent rolls into single webs has proved to be more cost effective and produce less waste. Automating the inspection process has significantly reduced the time and labor costs of the QA function. Using automated inspection eliminates the human error element greatly, reducing the chance of reprinting and reruns. Up to 15 percent less scrap has been experienced at the two client sites.

One more benefit is the automatic production of an error log which can prove

invaluable when removing defective labels with incorrect or missing data. This is achieved by producing a mapping file with each reel, which in turn provides a closure report indicating any errors which have occurred during the production of the reel including breakages, unreadable or missing labels.

The result is a quality audit of each individual reel and the opportunity to mark defective labels as void using an integrated inkjet printer.

Overall this automation is a good fit with Industry 4.0, which requires automation of inspection (and other processes) and can integrate seamlessly into an automated production workflow for the Industry 4.0 protocol. It also means that

the label converter is able to monitor the print quality of their output in real time. This allows converters to calibrate their printing systems, be they conventional or digital when (or if) an error is detected. This enables the converter to operate a zero defects protocol, for pharmaceutical or security labels for example, and thereby meet these end users' most stringent quality standards.

“For variable data labels it is important to inspect every label and code and verify that it is correct against the original data file”

Modern inspection systems can also be set up to communicate with MIS systems connected to a pharmaceutical or security track and trace system.

Automated inspection systems also offer environmental benefits which means that costly reprinting and is avoided and significant less waste of substrate, ink is produced and a saving in production time is achieved.



For more articles by L&L technical editor Tony White, go to www.labelsandlabeling.com/contributors/tony-white