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While label printing is a long-established industry, it's big enough to host some novel applications and significant opportunities for printers who aren't full-time converters

Don't stick to what you know

When most of us think of labels, probably the first things that come to mind are those on food, drink, household cleaning or pharmaceutical products. But that's just the beginning – there are labels for just about anything that needs to carry usage or safety information and for use in a range of situations, from indoor domestic or retail settings to some of the most inhospitable environments on Earth.

Learning this was part of the voyage of discovery at south Wales-based DecTek, where moving into label production has been one of the smartest moves director Mike Beese says he's ever made. The root cause of the change was the Covid pandemic, a period that Mr Beese says involved 'surviving, adapting and diversifying'.

He adds that the move into labels might look like a big step but once understood, it's a natural progression: the company's product development began with domed and name badges, and then expanded into signage, which Mr Beese describes as 'still printing onto plastic or metal, but larger'.

'We looked at what was trending and saw a huge growth in personalisation because of online shopping,' he recalls. Within what he calls 'small format' (SRA3) the business pivoted to making cartons and other packaging, business media, with investments aligned with the new packaging focus.

'We were already doing 'labels' in the form of domed badges, where resin was added to the print,' Mr Beese explains. Sheet-fed production of 'performance' labels for special or demanding applications then extended into self-adhesive graphics, window stickers and posters. Mr Beese notes that this was low- to mid-volume work, for labels that would be hand-applied. For higher volume work, up to around 100,000 labels, it was necessary to move to roll-fed production, but he notes that 'it had to be digital, we were not after high volume production, which is very competitive'.

▲ *Mike Beese (R) of DecTek with IGS's Peter Flynn and the Titanium 330R label cutter and laminator*

The production process was analysed and broken down into three stages – print, laminate and cut. For the print part, a Konica Minolta label press AccurioLabel 230 narrow web toner press was bought to provide throughput for higher volume, while a Canon ImagePress is used to print on self-adhesive sheet media; larger formats are handled via HP Latex 2700W and Canon Colorado 1650 roll-fed printers.

Cutting options vary by volume and print format. Higher volumes from the AccurioLabel press are handled by an RD330 semi-rotary mini conversion unit, while smaller volumes and samples are cut on a Titanium 330R roll-to-roll cutter supplied by International Graphic Supplies. Cut-sheet work from the Canon toner press goes through a Duplo PFI DI rotary cutter, and a Titanium large format cutting table manages the output from the roll printers.

The Titanium multi-cutter has been a particular find for DecTek. In addition to the ability to cut/kiss-cut, slit and sheet the output, as well being able to read barcodes to configure itself for each new job, it can laminate in the

same process, which Mr Beese says 'has opened up a whole new world of opportunity'.

As well as learning about the huge variety of labels that exist – Mr Beese says they have identified over 2000 types – DecTek had to go through various rounds of training for the narrow web press and new finishing/converting equipment, plus setting up the workflow to generate the appropriate output. The latter included getting to grips with software tools for sequentially numbered, barcoded or QR-coded output. He says the exercise has allowed a vast amount of knowledge to be gained, and confirms that the company has just secured a contract for two million serialised and coded labels in one order, which he estimates will take the Konica Minolta press about four days to produce.

Perhaps unsurprisingly, this means that the labels part of the business has grown dramatically over the past seven months and has effectively turned DecTek's role from a printer of predominantly personalised items working for direct clients into a 95% trade business that is actively taking on partners.

Mr Beese says that the move into label production has added £1 million of turnover to the business in the last year, which required taking on two further staff, and while he estimates he's spent some £650,000 on the equipment necessary, he points out that much of it also serves other purposes within DecTek's repertoire. 'It's growing every day, and we have further investment planned,' he concludes.

Printing money

A completely different application that is still a kind of label printing is at the Pénzmúzeum (money museum) in Budapest, Hungary. An IT project managed by systems integrator Complex IT involved the specification and installation of PoS (point-of-sale) printers, firstly for the normal printing of visitor tickets, of which typically some 200 to 250 are needed per day, but also, more unusually, for the printing of custom 'banknotes'.

This is part of a novel visitor attraction in which museum guests can design and print their own personalised banknotes, which may include photos of themselves, via dedicated terminals installed within the museum. In addition, visitors are engaged throughout their tour of museum by various interactive screen-based games for which they win points that are used to generate vouchers at the end of their visit.

▲ *The DTM printers at the Pénzmúzeum sit inside specially constructed terminals, and are hidden from visitors*

Complex IT chose DTM's CX86e Colour Tag compact label printers for this application for a number of reasons. The compact size and shape made it practical for the printers to be installed inside custom floor-standing terminals with user interface screens mounted in the top surface.

This is complemented by the printers' electronic management interface, which allow information such as ink and paper consumption, status of the printer or how many labels have been printed to be interrogated remotely for costing and replenishment purposes.

According to Botond Zemlényi, who worked on the project for Complex IT, 'Besides being compact and modular, there are additional reasons why the CX86e was the best choice, like its network connectivity and fast precise printing. The printer is easy to maintain, it's easy to replace the supplies or spare parts of the printer, such as replacing the image drum unit, toner and the fuser, for example.

'When these ideas were created, for us there was no other solution better suited than the DTM CX86e; before that the museum didn't have any other printing solutions.

'In conclusion, it is not an exaggeration to say that the CX86e is for this specific application the best label printer. The price-quality ratio in my opinion is appropriate to this very useable, versatile and 'smart' label printer.'

Whether it's a novel application like that at the Pénzmúzeum, or a complete business pivot, as has happened at DecTek, there seem to be plenty of good reasons to learn about labels. **dp**

Desktop short-run solution for on-demand label production

There are many different reasons to need short-run labels: for use on prototype products, promotional campaigns, and perhaps most often, because a company offers many different products that are all produced in smaller quantities. Another reason is the need to print variable data on product labels such as serial numbers, barcodes and other variable data fields. While hard to accomplish on traditional analogue equipment, it's not a problem with desktop inkjet solutions like the LX610e Color Label Printer.

LX610e prints and cuts any-shape labels

The LX610e is a full-colour, desktop label printer/plotter that delivers photo-quality labels. It combines colour inkjet label printing at up to 4800 dpi with a built-in digital die-cutting mechanism. The printer features a die-cutting knife blade for cutting labels into custom shapes and sizes and also a "pizza-wheel" style cutter for horizontal cutting of labels. The maximum print width of LX610e is 104 mm (4.1″) when using the die cutting function and 127 mm (5″) when using just the printing option on pre-die cut label materials.

LX610e includes easy-to-use software for laying out print and cut files. That allows the fast production of custom labels of virtually any size or shape all in one process. Like any other desktop colour label printer, the LX610e can also be fed with standard pre die-cut labels and tags for just printing.

Professional print businesses, label converters, advertising agencies, graphic design shops and other print providers will find the LX610e invaluable for producing accurate label samples, prototypes and short runs for client approval before ordering expensive hard-tooled or flexible dies. Small businesses can print their own short runs of hundreds or a few thousand custom labels, without incurring delays and die costs, while continuing to send their longer runs to label production shops. That provides them even more value and flexibility.

Two different types of ink are available for the LX610e Color Label Printer. Dye-based ink produces bright and vibrant colours that are perfect for prime label applications. Pigment-based ink prints labels that are slightly less bright but stand up to sunlight and water for years. Because the printer utilises an ultra-high capacity single CMY ink cartridge, users will only need to replace and keep on-hand one item instead of multiple. In addition, they get a brand new printhead each time they change the cartridge, simplifying maintenance and dramatically lowering on-going operating costs for cleaning and service.

An innovative printer like LX610e is only as good as its software. The easy-to-use software PTCreate™ Pro can be used with Mac and Windows alike. PTCreate Pro allows the fast production of custom labels of virtually any size or shape all in one process. An auto-trace cut function in PTCreate Pro will automatically find the edges of the artwork and is especially useful for printing and cutting label outlines and designs regardless of the complexity, shape or size. Additional tools include layering, export of images and contour cutting around intricate artwork. The LX610e is sold by DTM Print in a special bundle that offers the best to customers. This LX610e Pro bundle includes the printer, the PTCreate Pro Software and one roll of DTM Paper Semi Gloss.

With inkjet printing an on-demand label production is possible as only the actual needed quantity of labels can be produced at any time. In addition, labels can be easily personalised, offering additional business opportunities.

For more information: dtm-print.eu