

Marking On the Edge Inkjet Marking Helps Cost-Saving in Printing Industry

In the printing industry, paper cost is 50 - 70% of the total cost price. In order to be competitive, printers need to cut their margins and reduce cost, especially in paper. Increasingly, they require 'just-in-quantity' deliveries from paper merchants, as they do not want to be faced with paper surpluses in their stores. Likewise, their customers only want to pay for the exact number of printed products they order. Accurate and automatic sheet counting and picking has become a market need.

Accurate 'Just-in-Quantity' Delivery

Function Control was already known for their sheet counting solutions for big paper mills. Then, smaller companies in the printing industry also asked them for an accurate sheet counting and marking solution. One that suited their requirements and budgets. Niels KleinNibbelink, Managing Director: "We knew that our laser-based sheet counter would be far too expensive for the paper merchants. So, we had to think of a different technology to develop a system that combined counting and physical marking into one."

Price, Space and Safety

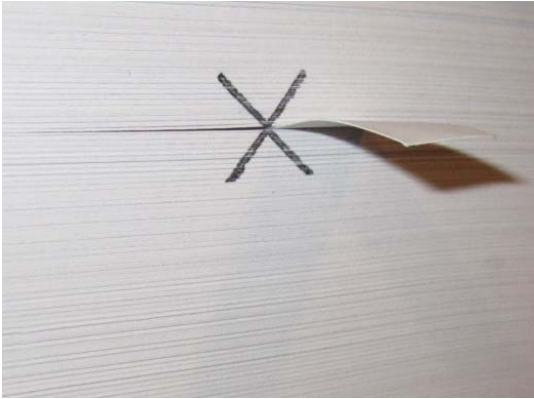
Jelmer Molenaar, Electronic Engineer, indicates their printing technology had to meet quite some requirements. "We already indicated price, which was key. Secondly, safety was an issue, as the machine was going to be manually operated. Next, the printing system should be really compact. It needed to fit into our camera unit and be installed very closely to the camera in order to print exactly at the right quantity of counted sheets. Finally, we needed a single character technology now, with the option to print more characters in the future."

Unusual Ink Specs

Ink was another critical factor. A major issue was that the unit would print only one thin cross every two minutes and remain idle in between. Quite a challenge for any ink not to dry in! Also, excellent visual contrast and adherence to a wide variety of coated and uncoated paper stocks were essentials. Jelmer: "Array Graphics' pigmented water-based Carton Black ink had all this. Its de-cap time is outstanding. This means the ink does not dry in, even if the printer is not used for quite some time. It is always ready-to-use, also in our short-run, non-continuous print application."



Carton Black is a **water-based pigmented ink**, expressly designed to compensate poor contrast in printing on highly porous substrate, just as cardboard. As it is, the pigment present in the water remain on the surface, after drying, thereby ensuring a remarkable level of blackness, even at comparatively low resolutions. Carton Black also answers this industry's specific needs for blackness, fast drying time and long de-cap time. These three key features have placed Carton Black into the new top-sellers of the *jet.fuel* range.

The Limits of Inkjet

Inkjet marking is a highly accurate way for sheet counting in the modern paper industry.

Niels recalls how Array Graphics came to Groningen with a sample system and a range of suitable, industrial inks. “We were able to see the system and the inks working. The tests, the compactness of the system, the integrated ink supply into the printhead and the On-Board RIP (OBR) for software communication made us decide in favour of Array Graphics. Implementation was rather smooth, although we had to stretch the limits of inkjet printing for our application.

Contrary to most applications, we have a vertical movement with irregular starts and stops. Still, the system and software adapts to our needs without effort.”

Positive Customer Feedback

With inkjet, Function Control has been able to integrate sheet counting and marking into one affordable system, the P7M, and to enter new markets. The system is the answer to the demand of paper merchants where ‘just-in-quantity’ delivery is trending. “Our end-users are really positive,” says Niels. “They say the system is very stable and runs flawlessly, even if it has not been operated for days or even weeks. They are really satisfied about the ink quality and performance, especially as the paper industry is known as a rather dusty environment”.

New Markets and Marketing Opportunities

The P7M is currently available in Dutch and German speaking markets, but Function Control intends to enter other markets shortly. Niels also sees opportunities for smaller printers and paper merchants because of price and ease of use. Jelmer: “As for technology, we now only print one character, a cross. But we can imagine that in a while our customers might want to add other data, like an order number, a barcode with supplier details or even have their name or logo on the paper stacks. The inkjet is ready for that and so are we.”

See also our website: www.arraygraphics.com

Function Control

Function Control is a Dutch company, who have their main office in Groningen, The Netherlands. The company has been designing, building and delivering industrial innovative optical and laser solutions for a wide range of quality producers for more than 20 years.

With their knowledge of astrophysics and optical technologies, Groningen University commissioned them to develop the very first optical sheet counter for solid board in 1987. A unique system, since it used optical counting instead of weighing for measuring the exact sheet quantity of board or paper stacks. The technology was further developed into different stack counting solutions and successfully found its way into market, particularly in the paper and board industry.

FUNCTION CONTROL