

Digital 

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## Continuous-feed inkjet needs to be better understood to boost uptake

Andrew Tribute, [PrintWeek](#), 26 February 2010

At the moment, little has happened to persuade printers in the graphic arts and publishing markets to adopt continuous-feed inkjet colour presses.

However, despite the slow start, this year I do expect sales into this sector to accelerate. Part of the problem has almost certainly been a lack of understanding about the realities of this market, and the sort of things that press buyers should get to grips with while investigating the purchase of such a press. Following are a few things I think buyers of these presses need to understand.

Despite initial indications given by many suppliers, there is no aqueous ink-based high-speed continuous or sheetfed press that can print on normal litho substrates and maintain a high standard of output. With these kinds of substrates, the ink penetrates into the fibres and spreads leading to a poor resolution and other defects in the printing.

There are currently two approaches to handling this problem: the first is to have papers that have been pre-treated with a special coating, the second is to apply a paper treatment on the press.

Will this always be the case? It's difficult to say, but at the moment, there is nothing available that will allow for the use of untreated substrates. However, pigments are being developed that may allow future inks to work with standard offset substrates. In the meantime, pre-treatment of paper is obviously an extra cost in the process.

### Ink issues

The inks being used for these presses use both dyes and pigments as ink colorants. Dye-based inks are generally cheaper, but pages printed with dye inks can look flat and often somewhat 'washed out'. Dye inks are good for monochrome text printing, however they also appear to generate more show-through than pigmented inks, particularly on low-quality uncoated papers like newsprint.

The quality from pigmented inks is generally higher, particularly for colour images, but it's important to check availability; some press manufacturers that claim to offer both dye and pigmented inks have so far been unable to supply pigmented inks.

At this time, with one exception, all the high-speed presses (sheetfed and roll-fed) use aqueous inks. UV-curable ink costs are higher and the very high-speed printheads used in the faster machines only work with water-based inks.

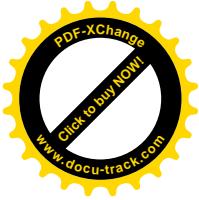
There is a great deal of confusion regarding printheads. Some heads have an extremely long life of around 3,000 hours before they may need replacing, others have a much shorter life span. As you might expect, the very long-life heads are substantially more expensive.

In the electrophotographic market, the standard business model employs the 'click charge', where the operator pays an agreed price for every impression. This charge will include payment towards the service contract and all consumables. While the click pricing model will be offered, the majority of inkjet presses are to be sold on a pay-by-usage basis where there will be a service contract, but where all consumables, including ink and printheads will be paid for as they are used.

In the sheetfed production colour market almost all the toner is supplied by the press supplier. In the Soho desktop inkjet market there is a very large third-party ink cartridge market. In the super-wide format inkjet market again there is also a very large third-party ink supply market. In the high-speed inkjet market many of



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the suppliers buy their printheads from the printhead manufacturers and the printhead suppliers don't supply ink so the press manufacturers have to develop their inks or source ink from an ink company. It is quite clear that for some presses there will be a third-party ink supply market with lower price inks.

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