

Hybrid printing combines the best of both offset and inkjet

The future of printing is about the most appropriate use of technology, whether offset or digital. Or in a combination of inkjet digital printing with conventional offset printing, to judge by developments at Drupa and since.

One of the main obstacles to widespread penetration of digital printing into mainstream longer run print has been the cost of the consumables, whether a click charge for sheetfed print, or the inks in an inkjet system. As these can be nine times the cost of equivalent offset ink, this presents a formidable barrier to switching from one process to the other.

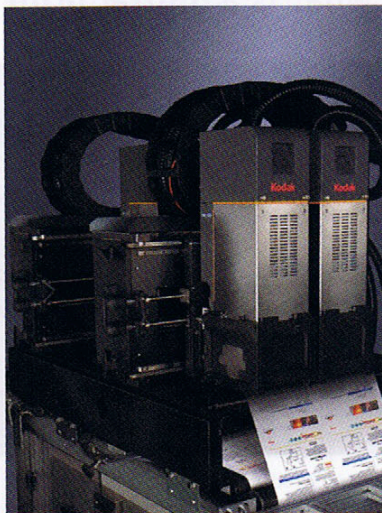
THERE IS ALSO THE engineering to consider. Most offset press designs have been honed over many years to arrive at the most efficient way of transporting paper at high speed and high precision from one end of a machine to another.

Digital web press designs have instead focused on solving the problem of presenting the inkjet heads with a stable target, at a set distance beneath the heads, to aim at. The designs are not optimised for speed, and certainly not for automation. Each time a reel is changed, the press must stop to allow the splice to pass gently through the machine.

A THIRD FACTOR HAS BEEN that variable data is not always necessary on every part of a job and that therefore a press can be using expensive inkjet inks when low cost litho inks might be more suitable, especially with the issues concerning inkjet printing on coated papers and web stretch and drying on all papers.

The solution may lie in using the best of both offset and inkjet technologies in a combined effort to produce the sort of cost effective and high impact print that end customers want. This was evident at Drupa where each of the German sheetfed press providers discussed how an inkjet system in the delivery of a press might add some variable data elements to the printed sheet. But this approach is limited.

Domino is providing its K600 inkjet heads as a module for users to add variable data to an otherwise conventional label press. But these are well behind Kodak which has found



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widespread success with its Prosper Stream print heads.

The Lettershop Group in Leeds was the first in the world to employ the Stream heads to add high quality variable colour to a preprinted litho web. It has mounted the Prosper heads on a dedicated finishing unit, lined up to print where the M600 has left a blank space.

If TLG was the first, it was only ahead of the game. In Japan, a Ryobi customer has installed a press where two of the conventional print units have replaced plates with inkjet heads. The press runs at normal sheetfed speeds, while the heads print personalised coupons directly relevant to the end customer. Needless to say the development sparked a great deal of interest, not least because it prints on all paper types.

TIMSON HAS FITTED KODAK inkjet heads across the full width of its book press, resulting in the T-Press, a true high speed digital book press. It uses the same press and web handling systems as a conventional press and has a folder delivering 48pp sections. But instead of these needing to be gathered and fed via hoppers into a binding line, the sections are printed in sequence and can pass directly into the binder, saving time and labour. Here the hybrid approach

is a combination of inkjet technology and established press engineering.

And the third approach is perhaps most interesting of all. Anton Press has added Kodak Prosper heads to the Cutstar unit of a Heidelberg Speedmaster perfecter. Anton can print a mail piece with fully personalised letter combined with standard promotional leaflet and offers relating to that target, all at litho press speed. The extra marginal cost is easily mitigated by speed of turnaround, savings in waste and in subsequent handling.

THE HYBRID DEVELOPMENT is going to be subject of a lunchtime round table during the Print Efficiency event in Perivale next month. The speakers will include representatives from Kodak, from Ryobi, Timsons and from Adphos, the company that handles the drying of the web and has been active in these developments.

It is an opportunity to get some insight into the potential for this new approach and some of the issues that it raises both for printers and for specifiers who have been put off by the cost or quality issues that digital printing throws up.

THE SEMINAR TAKES PLACE during the six days of Print Efficiently event which is being staged for the second year at the IFS premises in Perivale. As the title suggests, the aim is to demonstrate linked workflows from prepress and digital printing through litho print and into finishing.

Kodak provides the prepress element and a NexPress for digital printing; Shuttleworth provides the MIS; Apex Digital Graphics will bring a Ryobi 925 SRA1 sheetfed press from its Hemel Hempstead showroom. The finishing side will be dominated by Horizon, which is distributed by IFS with folding and stitching, Perfecta guillotines, Foliant laminators and KAS mailing lines. In addition Roland DG will have a wide format inkjet machine and Antalis will provide paper and materials.



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