

the ability to produce good copy with the minimum of waste by the accurate presetting of the duct. Arguably, this requirement is of a higher priority than maintaining the required ink weight on the run. The favoured method of obtaining the necessary information for pre-setting is taking from a scanned page film or from the actual printing plate.

The second application where a presetting function is desirable is in work of a repeatable nature in the commercial field, such as cartons. However, one needs to consider the amount of repeat work carried out in order to justify the expenditure. In this instance, data is stored on punched or magnetic tape.

For web presses Rockwell Goss PCS/PAR, Harris Densicontrol, Man-Mavo and Baker Perkins Instacolour are indicative of those systems scanning film positives or negatives, from which ink duct settings are computed. This is a logical progression towards automation.

With the Goss system, a scanner (printed area reader), usually located in the plate room, scans each page negative in turn. The scanner consists of light tubes whose light passes through the clear areas of the film and is collected by light cells. It is then processed, grouped into column widths and converted into ink screw settings.

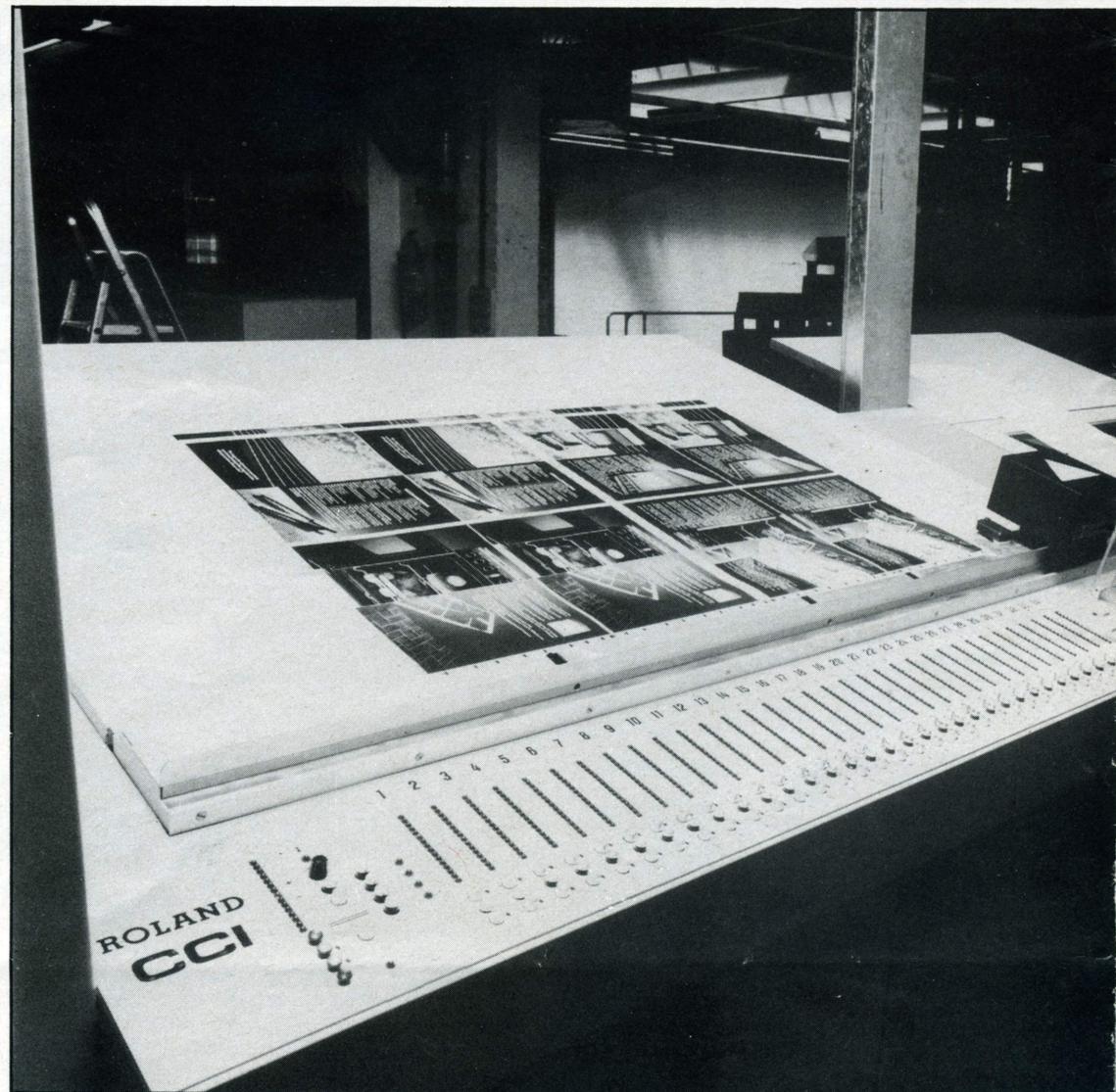
The Harris system is similar, the scanner being termed the Densicontrol unit which records setting data on magnetic tape. The second half of the Harris system, the Telecolor, comprises remote control of inking and, if fitted, the pre-setting tape reader. An LED screen provides a duct profile.

GMA-Nohab also offers a film scanning facility for its OP-16 web offset press.

There are other film scanners available and now plate scanners such as the VTT from Finland, and more recently Dainippon. With the latter, information from the plate is stored on magnetic card. When required the data on the card is read in the control console and is used to calculate ink duct settings and fountain roller speed.

Recent developments now provide for presetting via the Eocom Laserite, a laser plate-making system; the laser scanned digitised information can be fed directly into the Goss PCS from which the ducts are set accordingly.

The third category of ink control



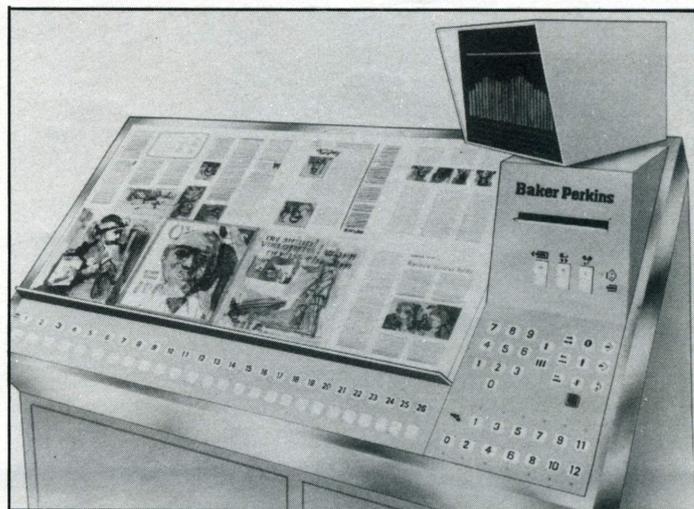
*Above: Roland CCI control console on a four-colour Rekord at Studio Press.*

*Right: control console for Baker Perkins web press.*

can be defined as automatic or closed loop systems.

To date there is only one system that fits into this category, that being Roland CCI which is an extension of the off-press console RCI system. The CCI system is not fully automatic in that operator invention in determining frequency of scanning the printed sheet by the densitometer is still required. Printed values can be compared with input set values for both solid and tint densities. Any adjustments to the ink feed is made automatically. Recording of data is facilitated by punched tape. A hard copy printer presents a visual status of the ink ducts together with an LED display.

Other systems that incorporate a densitometer include the Heidelberg CPC11 with a multi-head unit, and the Miller-Johannisberg Unimatic C3 with the Tobias



system which incorporates a scanning densitometer and VDU display. A link can be made between Planeta Varicontrol and a hand-held Macbeth densitometer.

Few of the above systems are installed in the UK at present, for a variety of reasons. There are several other systems at various stages of development, exhibited for the first time at Drupa. The Albert A101 web press is

commercially available and is believed to be linked to a film scanner via punched tape. Toshiba has a similar set-up for its web press with control from a control console with a VDU to indicate duct profile. Data storage is available and recently the ability to preset ink screws from integrated film density readings has been developed.

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